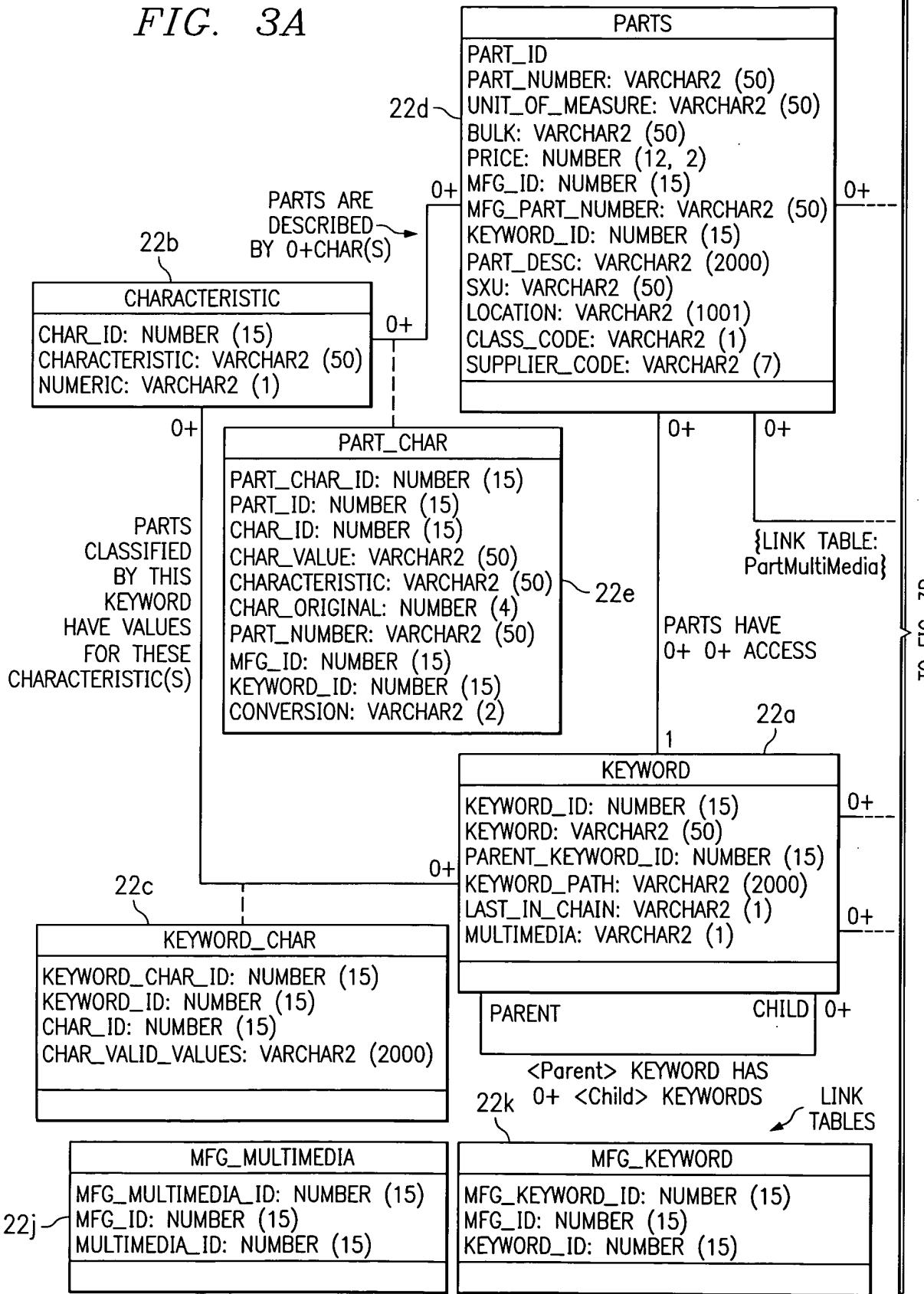


FIG. 3A



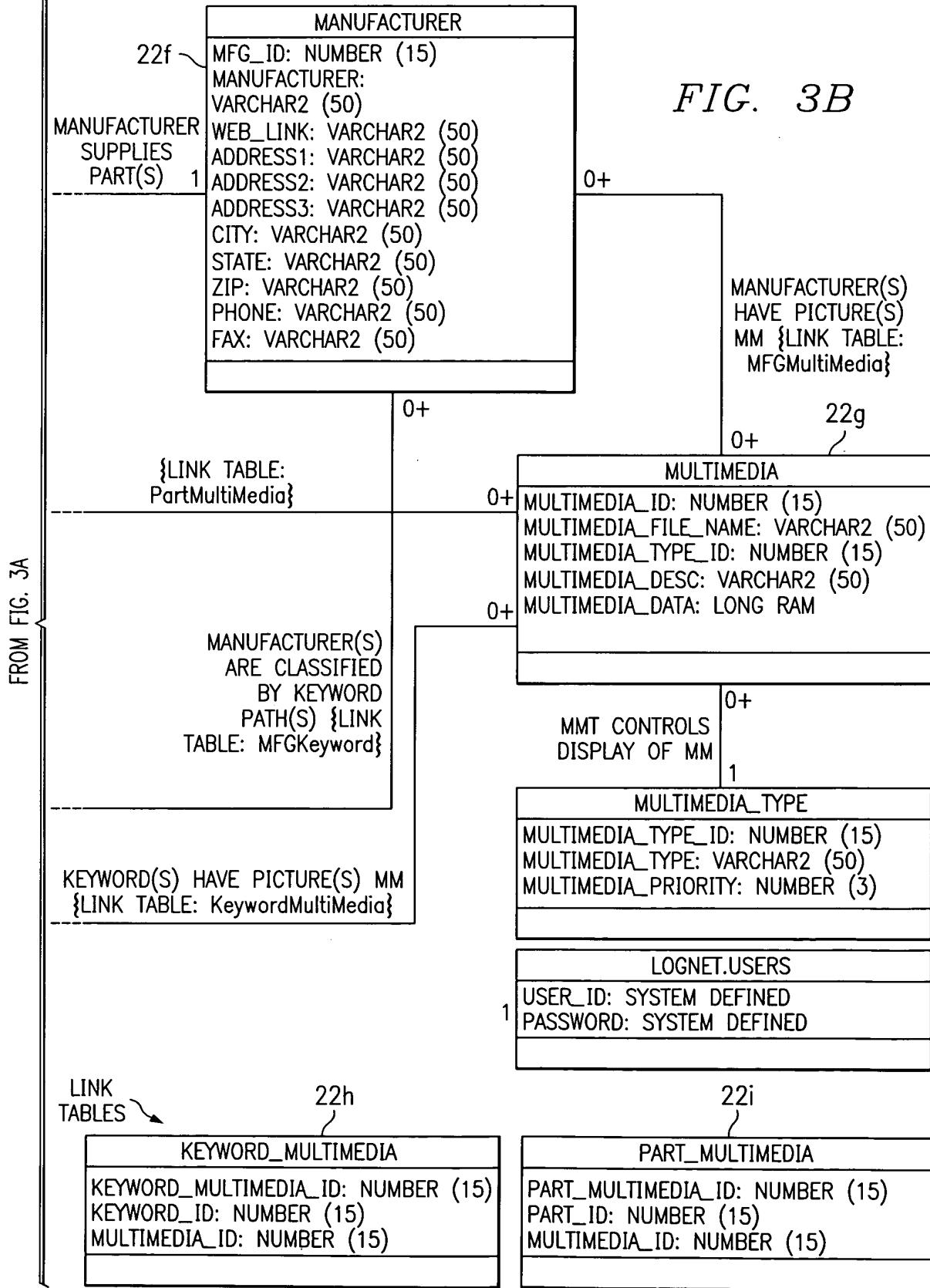


FIG. 3C

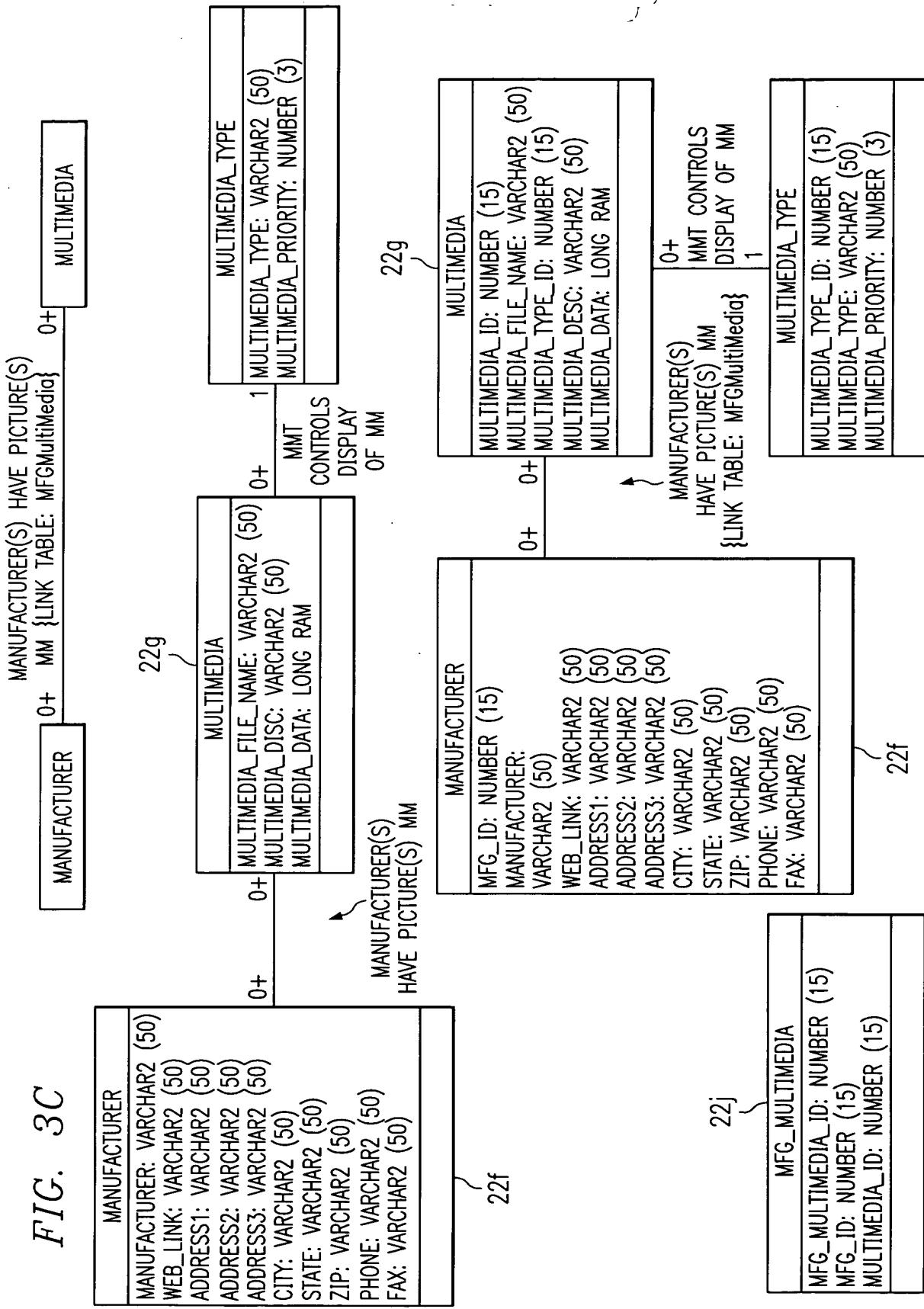


Fig. 4A

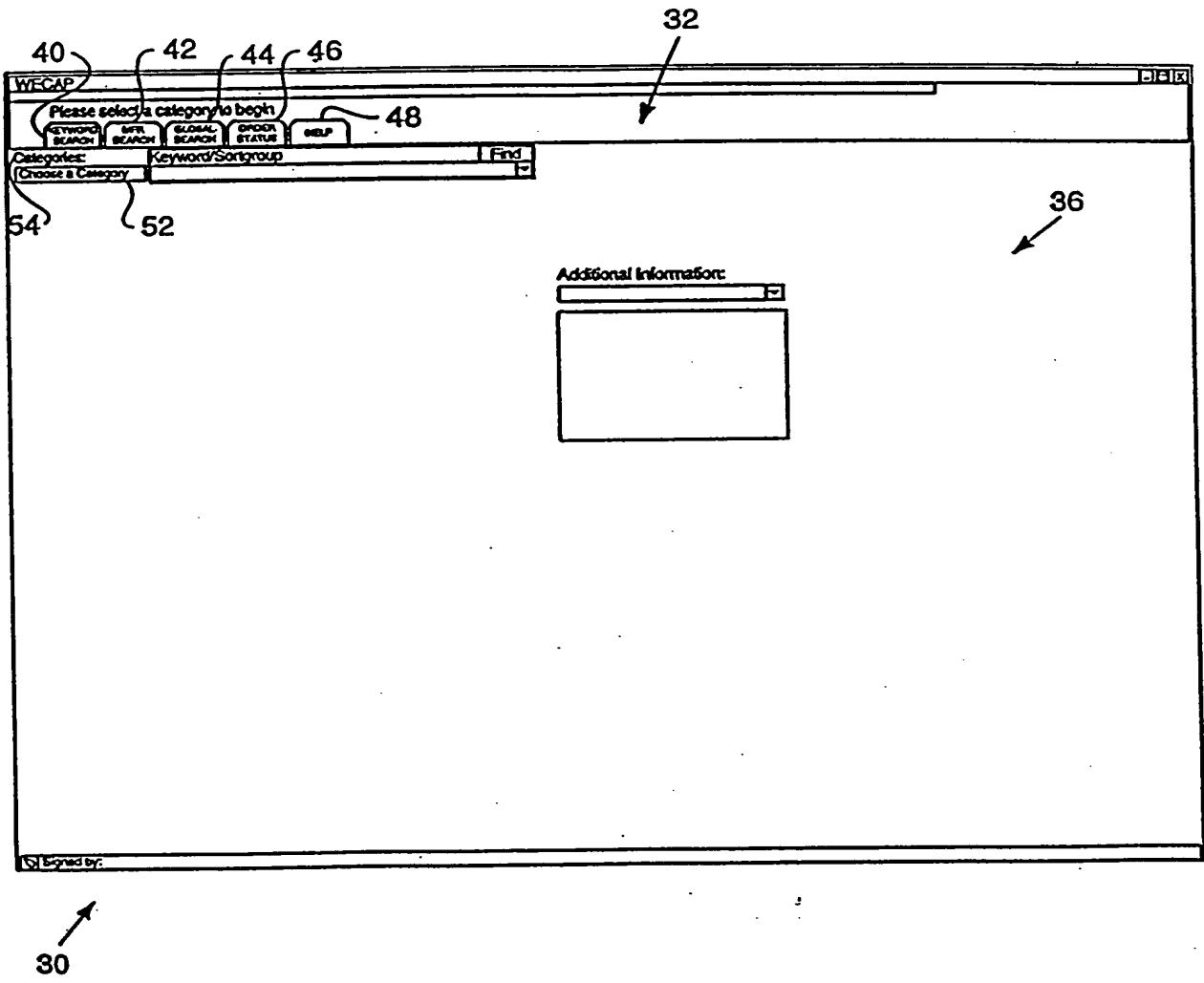


Fig. 4B

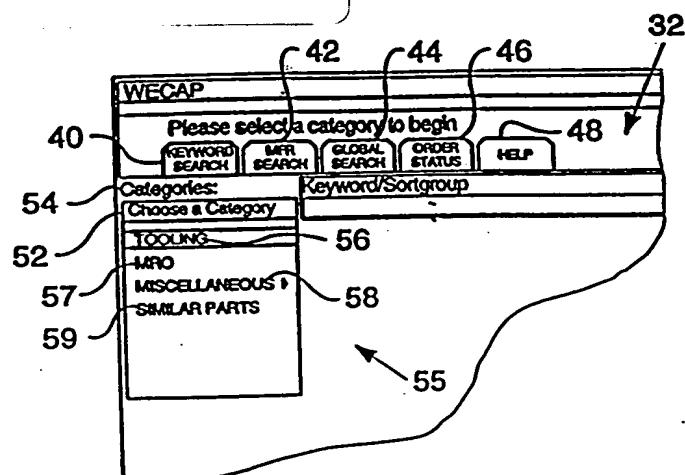


Fig. 5A

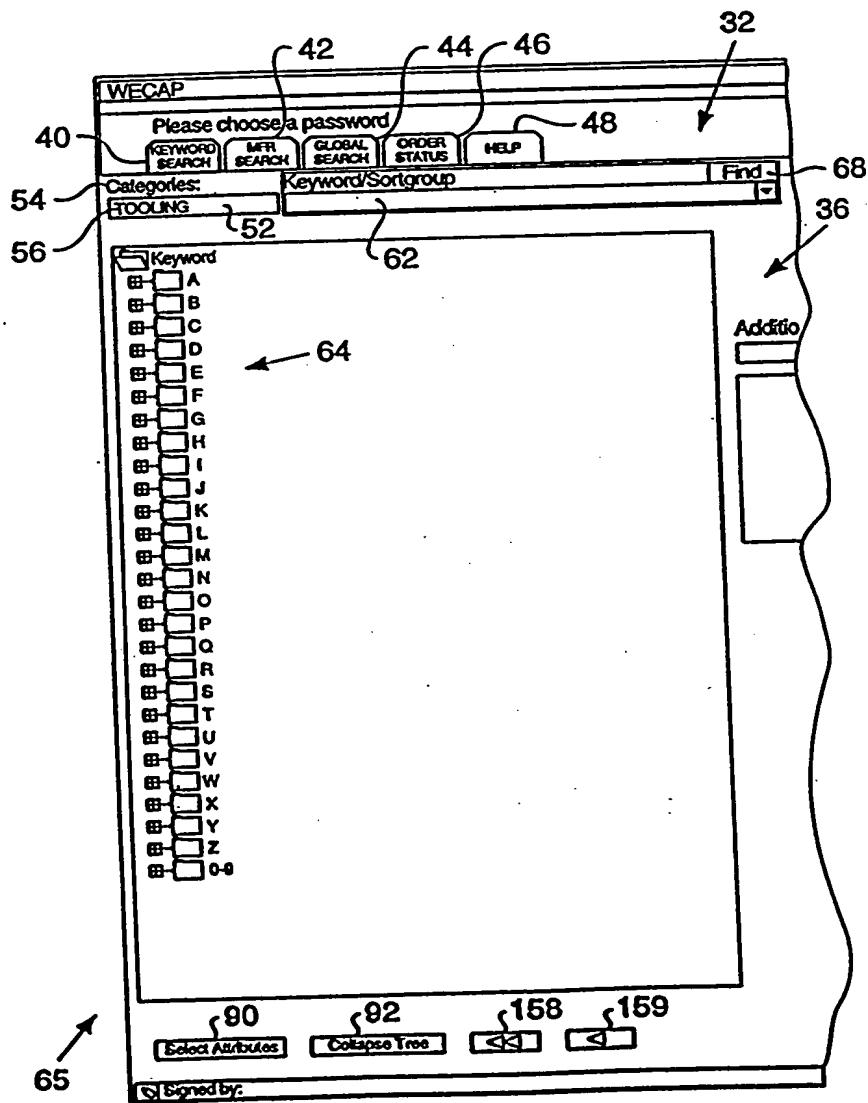


Fig. 5B

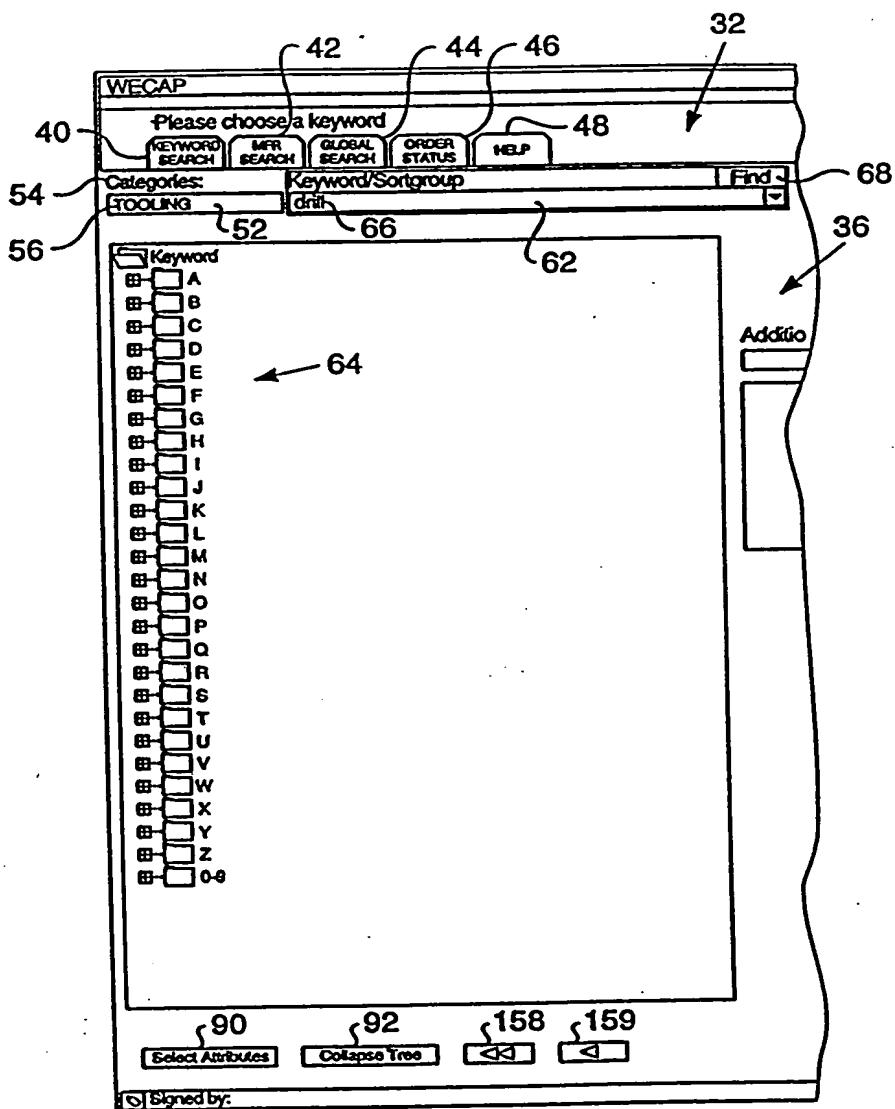


Fig. 5C

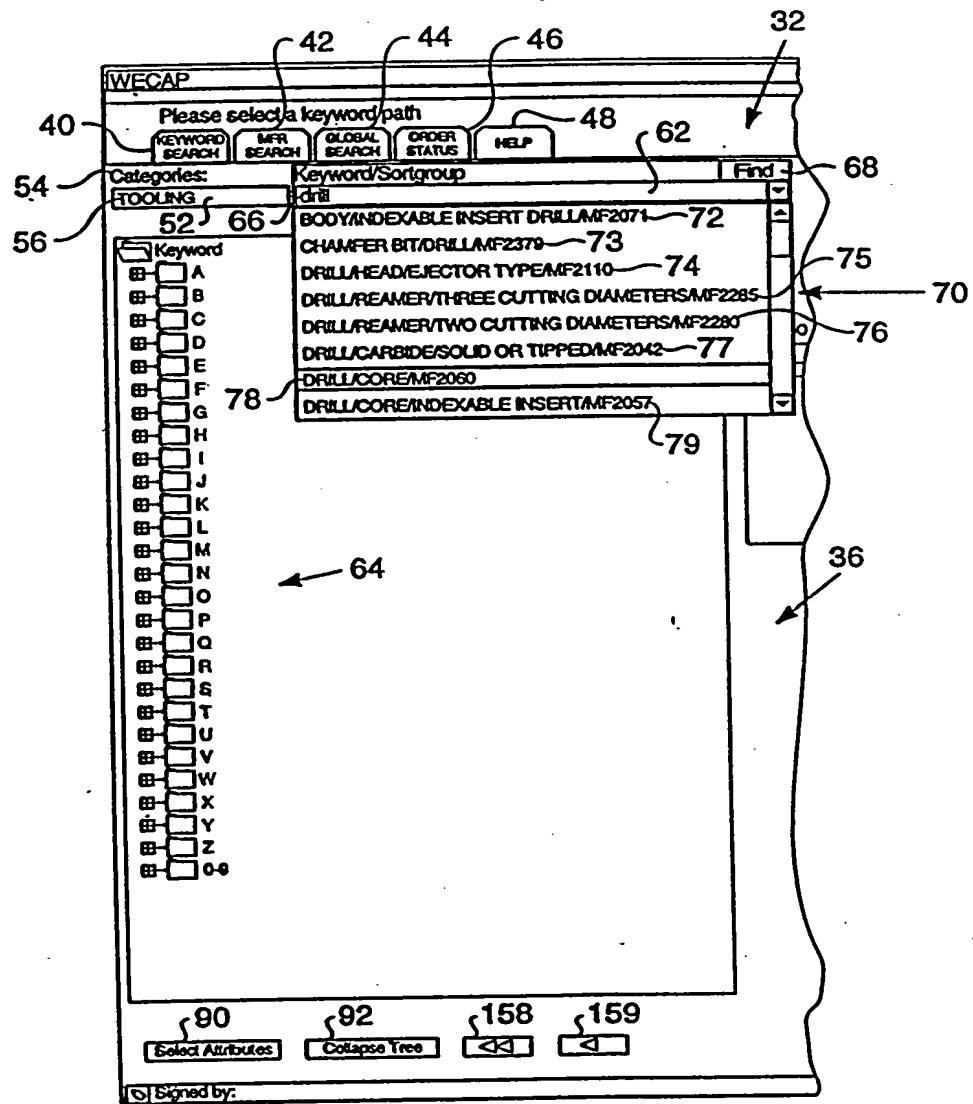


Fig. 5D

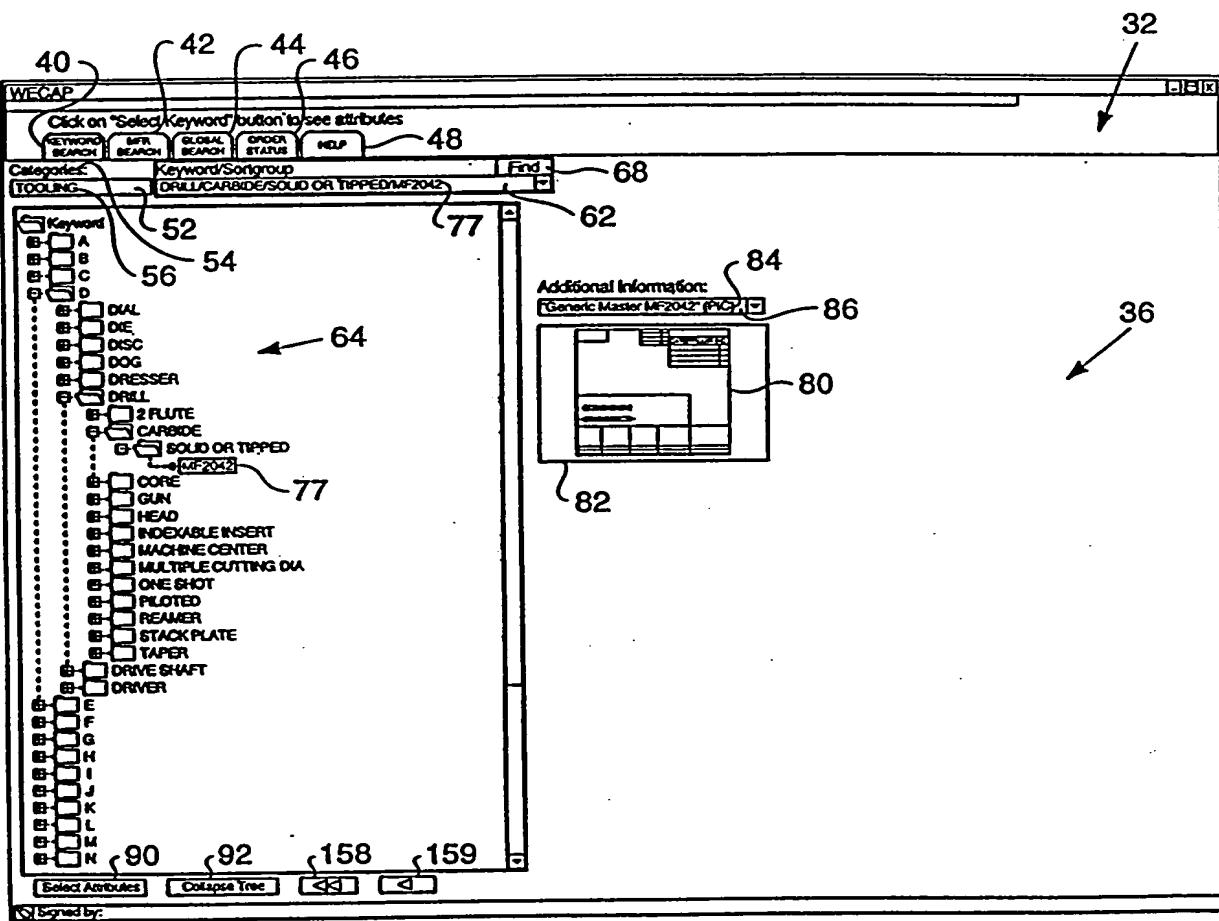


Fig. 6A

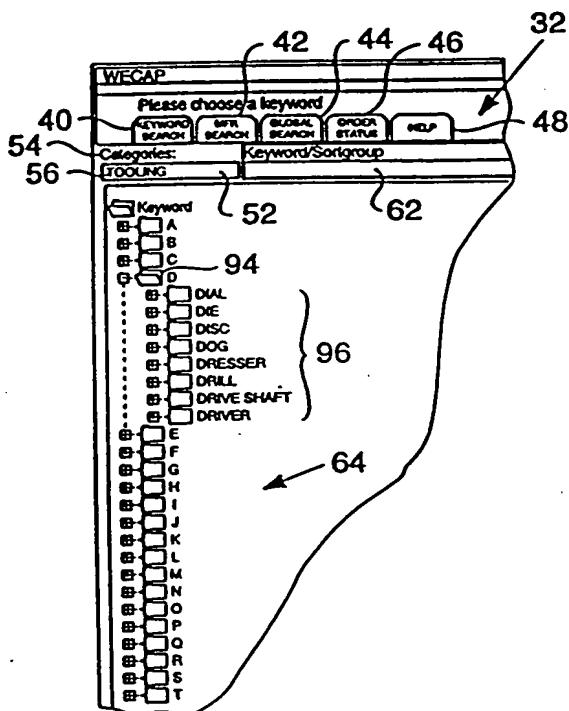


Fig. 6B

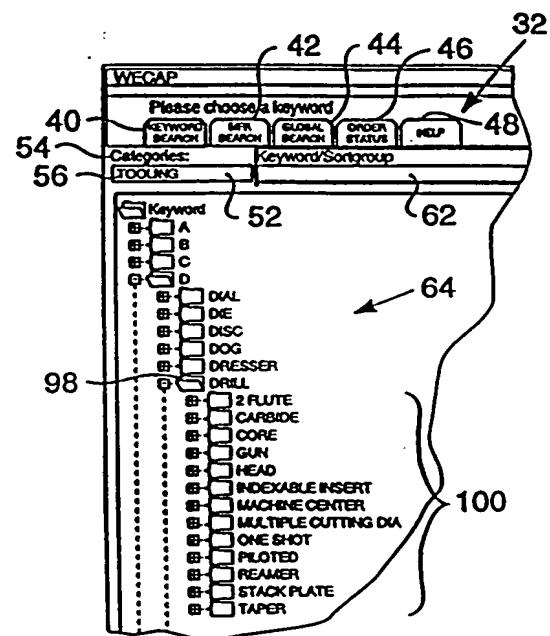


Fig. 6C

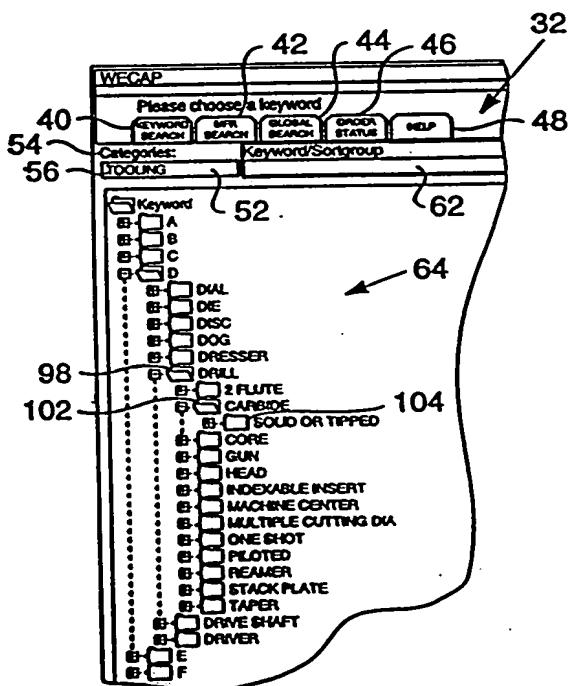


Fig. 6D

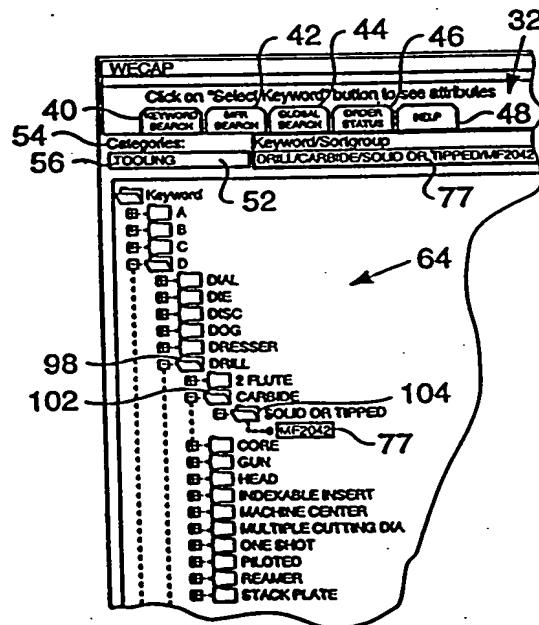


Fig. 7

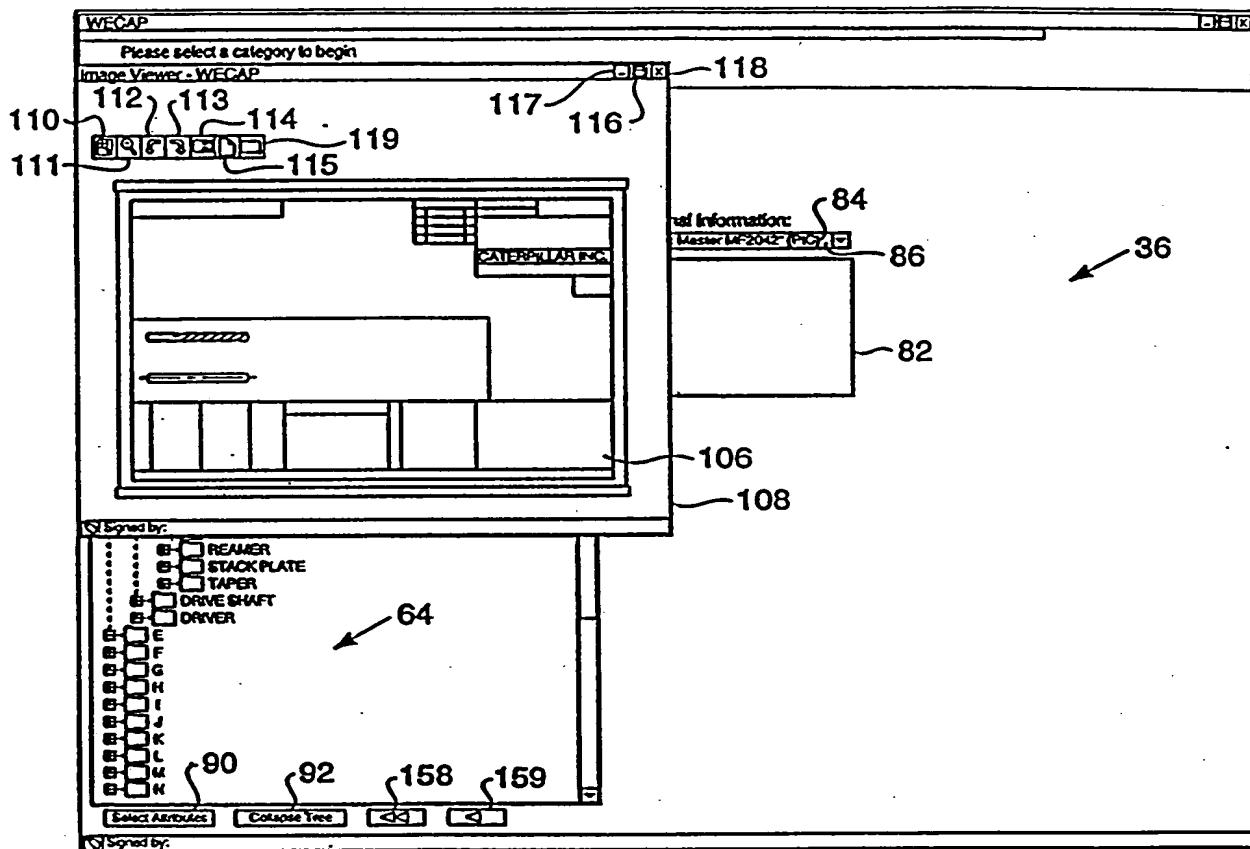


Fig. 8A

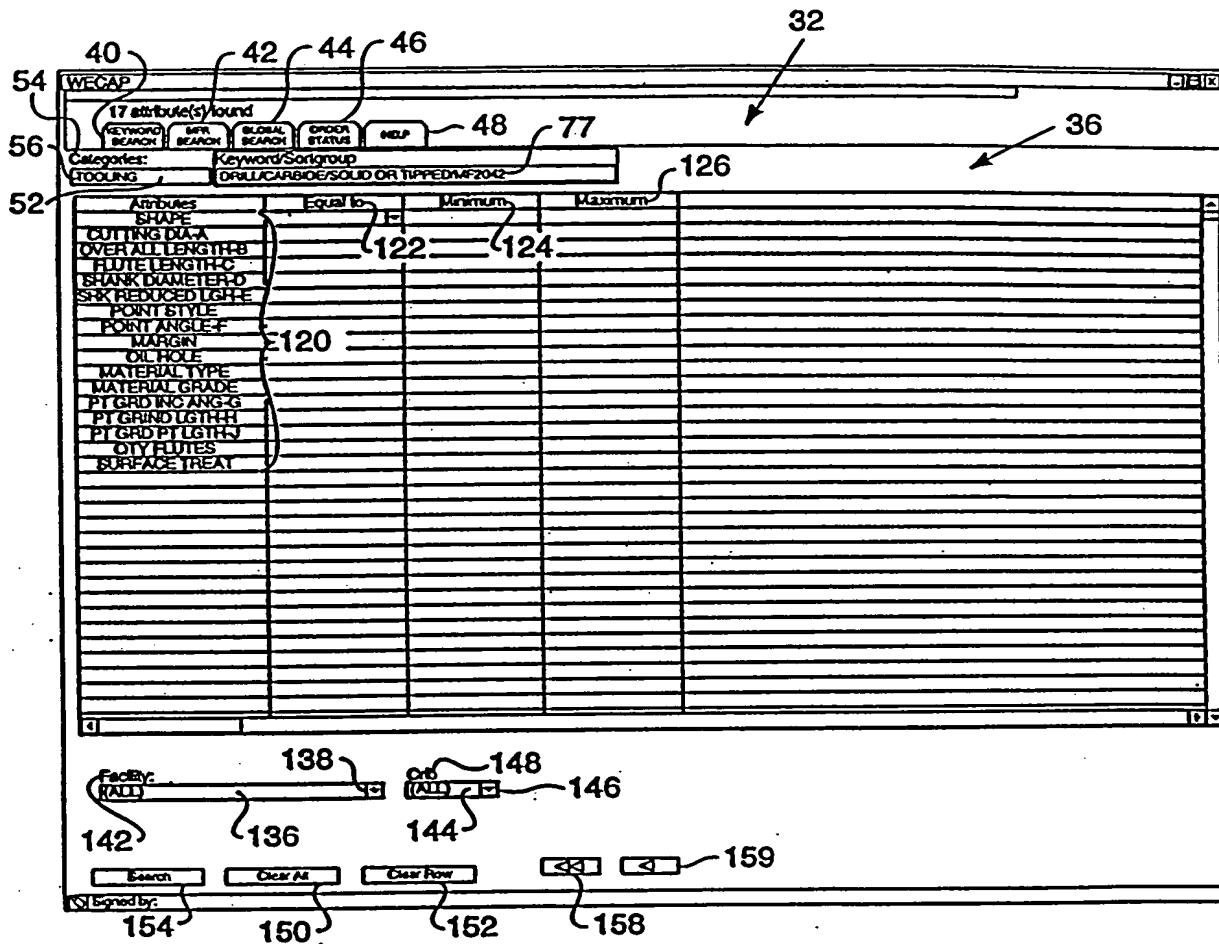


Fig. 8B

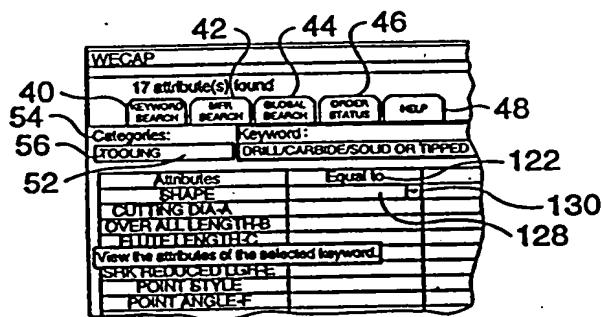


Fig. 8C

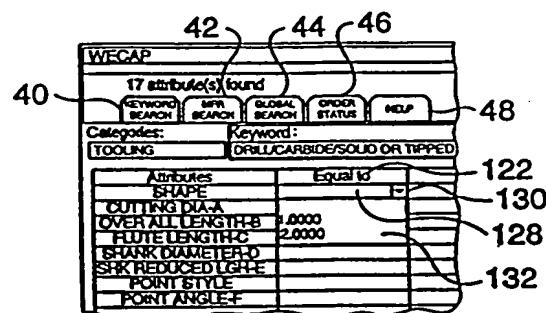


Fig. 8D

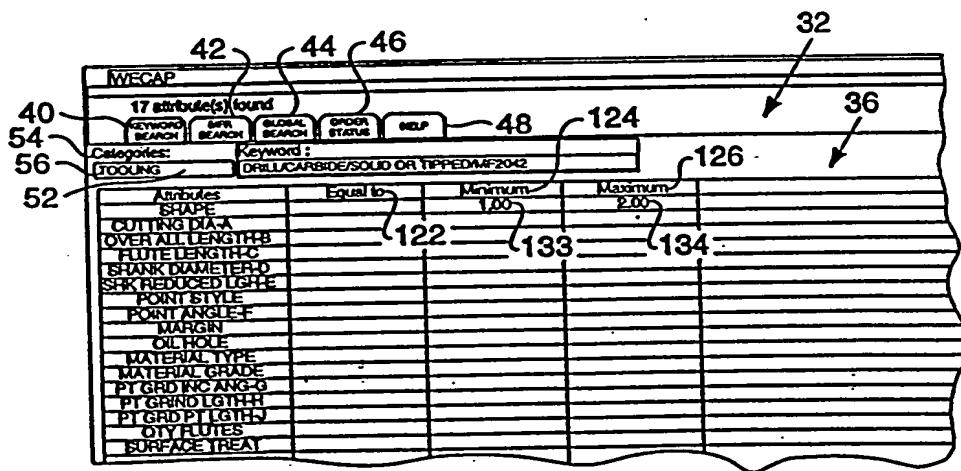


Fig. 8E

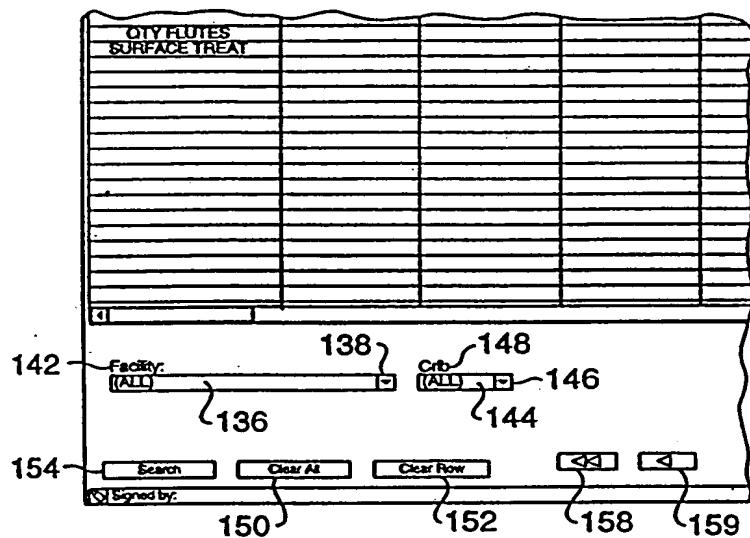


Fig. 8F

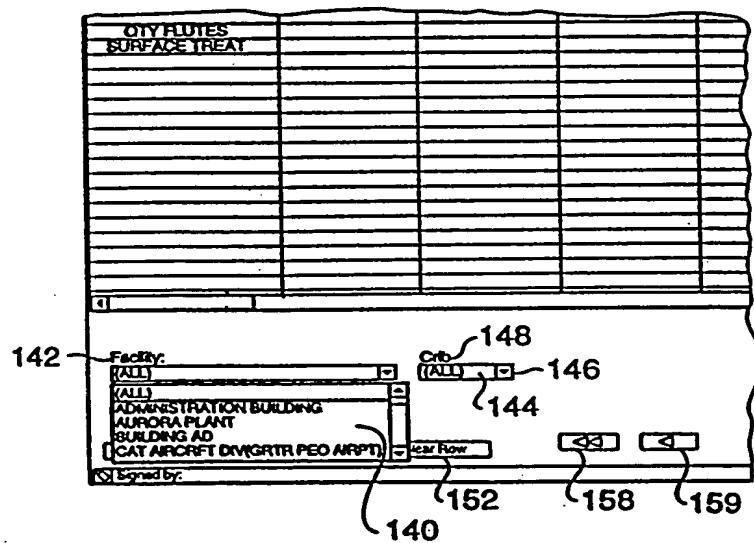


Fig. 9A

WEBCAP

Results 1-100 of 398	42	161	44	46	32	164	165	166	167	36
40	40	40	40	40	40	40	40	40	40	40
54	54	54	54	54	54	54	54	54	54	54
56	56	56	56	56	56	56	56	56	56	56
52	52	52	52	52	52	52	52	52	52	52
168	168	168	168	168	168	168	168	168	168	168
40	40	40	40	40	40	40	40	40	40	40
54	54	54	54	54	54	54	54	54	54	54
56	56	56	56	56	56	56	56	56	56	56
160	160	160	160	160	160	160	160	160	160	160
42	42	42	42	42	42	42	42	42	42	42
161	161	161	161	161	161	161	161	161	161	161
44	44	44	44	44	44	44	44	44	44	44
46	46	46	46	46	46	46	46	46	46	46
162	162	162	162	162	162	162	162	162	162	162
163	163	163	163	163	163	163	163	163	163	163
164	164	164	164	164	164	164	164	164	164	164
165	165	165	165	165	165	165	165	165	165	165
166	166	166	166	166	166	166	166	166	166	166
167	167	167	167	167	167	167	167	167	167	167
36	36	36	36	36	36	36	36	36	36	36
1	1	1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9	9	9	9
10	10	10	10	10	10	10	10	10	10	10
11	11	11	11	11	11	11	11	11	11	11
12	12	12	12	12	12	12	12	12	12	12
13	13	13	13	13	13	13	13	13	13	13
14	14	14	14	14	14	14	14	14	14	14
15	15	15	15	15	15	15	15	15	15	15
16	16	16	16	16	16	16	16	16	16	16
17	17	17	17	17	17	17	17	17	17	17
18	18	18	18	18	18	18	18	18	18	18
19	19	19	19	19	19	19	19	19	19	19
20	20	20	20	20	20	20	20	20	20	20
21	21	21	21	21	21	21	21	21	21	21
22	22	22	22	22	22	22	22	22	22	22
23	23	23	23	23	23	23	23	23	23	23
24	24	24	24	24	24	24	24	24	24	24
25	25	25	25	25	25	25	25	25	25	25
26	26	26	26	26	26	26	26	26	26	26
27	27	27	27	27	27	27	27	27	27	27
28	28	28	28	28	28	28	28	28	28	28
29	29	29	29	29	29	29	29	29	29	29
30	30	30	30	30	30	30	30	30	30	30
31	31	31	31	31	31	31	31	31	31	31
32	32	32	32	32	32	32	32	32	32	32
33	33	33	33	33	33	33	33	33	33	33
34	34	34	34	34	34	34	34	34	34	34
35	35	35	35	35	35	35	35	35	35	35
36	36	36	36	36	36	36	36	36	36	36
37	37	37	37	37	37	37	37	37	37	37
38	38	38	38	38	38	38	38	38	38	38
39	39	39	39	39	39	39	39	39	39	39
40	40	40	40	40	40	40	40	40	40	40
41	41	41	41	41	41	41	41	41	41	41
42	42	42	42	42	42	42	42	42	42	42
43	43	43	43	43	43	43	43	43	43	43
44	44	44	44	44	44	44	44	44	44	44
45	45	45	45	45	45	45	45	45	45	45
46	46	46	46	46	46	46	46	46	46	46
47	47	47	47	47	47	47	47	47	47	47
48	48	48	48	48	48	48	48	48	48	48
49	49	49	49	49	49	49	49	49	49	49
50	50	50	50	50	50	50	50	50	50	50
51	51	51	51	51	51	51	51	51	51	51
52	52	52	52	52	52	52	52	52	52	52
53	53	53	53	53	53	53	53	53	53	53
54	54	54	54	54	54	54	54	54	54	54
55	55	55	55	55	55	55	55	55	55	55
56	56	56	56	56	56	56	56	56	56	56
57	57	57	57	57	57	57	57	57	57	57
58	58	58	58	58	58	58	58	58	58	58
59	59	59	59	59	59	59	59	59	59	59
60	60	60	60	60	60	60	60	60	60	60
61	61	61	61	61	61	61	61	61	61	61
62	62	62	62	62	62	62	62	62	62	62
63	63	63	63	63	63	63	63	63	63	63
64	64	64	64	64	64	64	64	64	64	64
65	65	65	65	65	65	65	65	65	65	65
66	66	66	66	66	66	66	66	66	66	66
67	67	67	67	67	67	67	67	67	67	67
68	68	68	68	68	68	68	68	68	68	68
69	69	69	69	69	69	69	69	69	69	69
70	70	70	70	70	70	70	70	70	70	70
71	71	71	71	71	71	71	71	71	71	71
72	72	72	72	72	72	72	72	72	72	72
73	73	73	73	73	73	73	73	73	73	73
74	74	74	74	74	74	74	74	74	74	74
75	75	75	75	75	75	75	75	75	75	75
76	76	76	76	76	76	76	76	76	76	76
77	77	77	77	77	77	77	77	77	77	77
78	78	78	78	78	78	78	78	78	78	78
79	79	79	79	79	79	79	79	79	79	79
80	80	80	80	80	80	80	80	80	80	80
81	81	81	81	81	81	81	81	81	81	81
82	82	82	82	82	82	82	82	82	82	82
83	83	83	83	83	83	83	83	83	83	83
84	84	84	84	84	84	84	84	84	84	84
85	85	85	85	85	85	85	85	85	85	85
86	86	86	86	86	86	86	86	86	86	86
87	87	87	87	87	87	87	87	87	87	87
88	88	88	88	88	88	88	88	88	88	88
89	89	89	89	89	89	89	89	89	89	89
90	90	90	90	90	90	90	90	90	90	90
91	91	91	91	91	91	91	91	91	91	91
92	92	92	92	92	92	92	92	92	92	92
93	93	93	93	93	93	93	93	93	93	93
94	94	94	94	94	94	94	94	94	94	94
95	95	95	95	95	95	95	95	95	95	95
96	96	96	96	96	96	96	96	96	96	96
97	97	97	97	97	97	97	97	97	97	97
98	98	98	98	98	98	98	98	98	98	98
99	99	99	99	99	99	99	99	99	99	99
100	100	100	100	100	100	100	100	100	100	100

View Results

Ladder Sort Order

Unit

Default Metric English

208 212 180 178 196 182 158 159

Signed by:

Fig. 9B

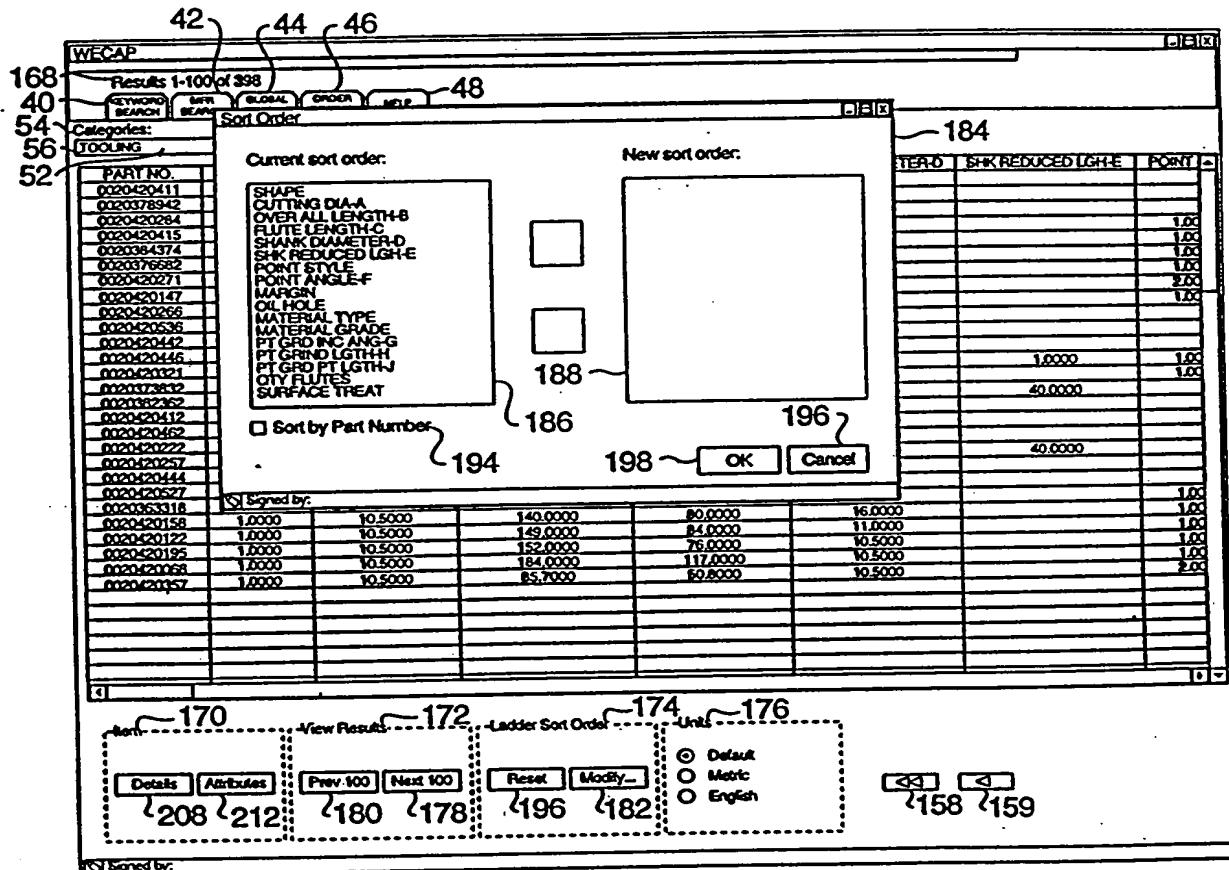


Fig. 9C

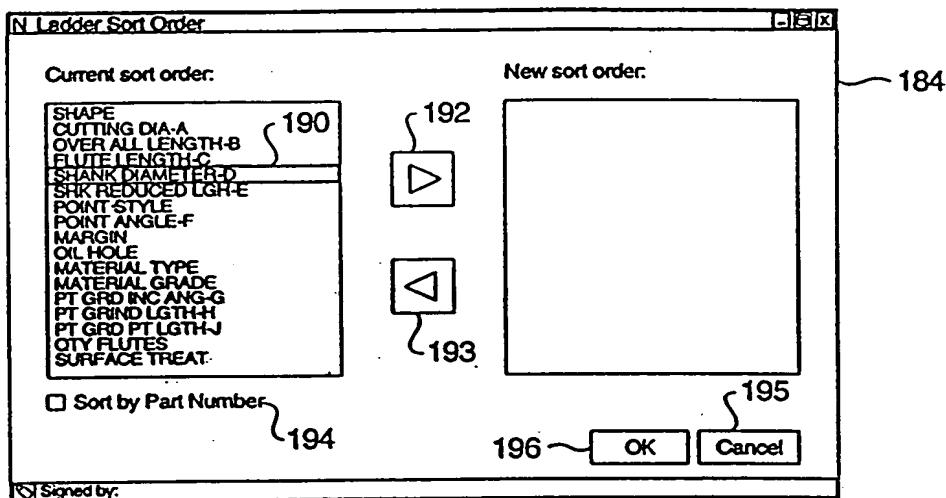


Fig. 9D

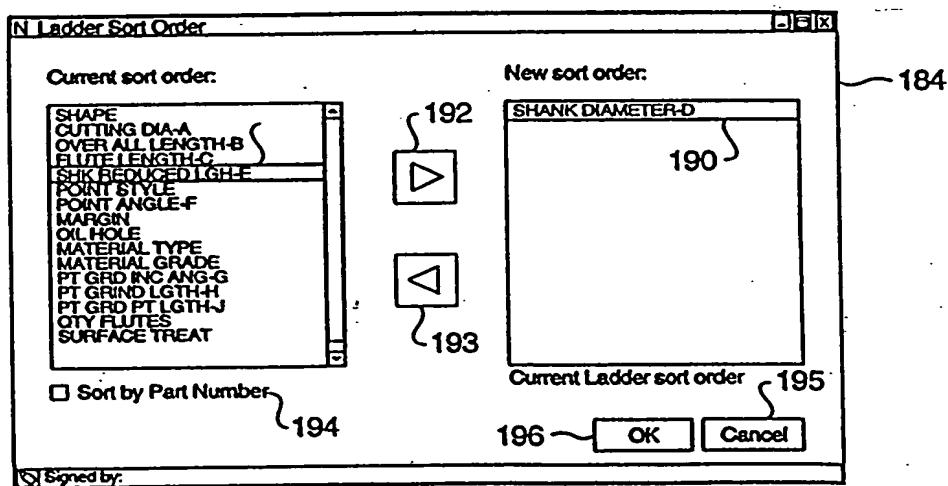


Fig. 9E

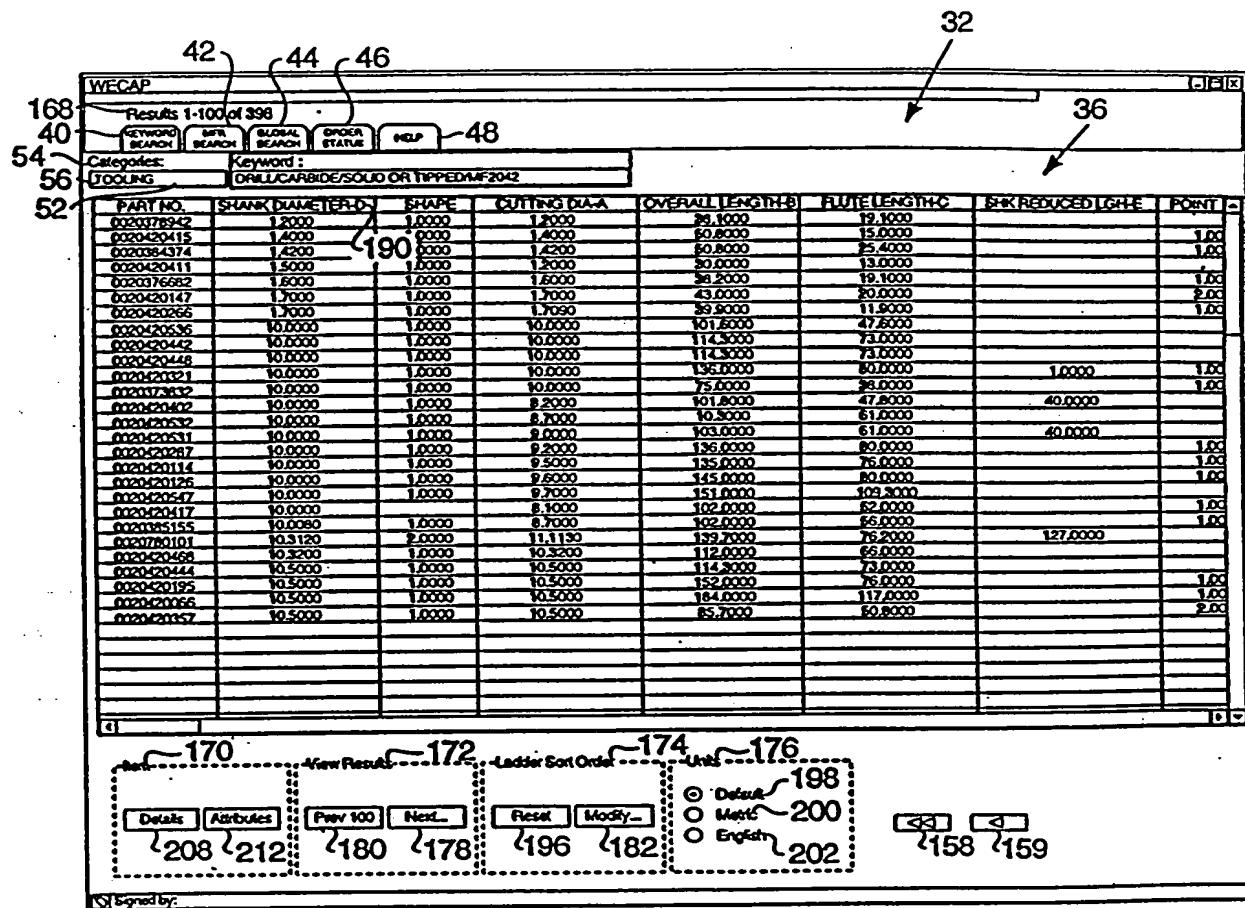


Fig. 9F

PART NO.	CUT DIA.A	OVERALL LENGTH-B	SHANK DIA.C	SHANK LENGTH-D	TIPT LENGTH-E	FLUTE LENGTH-F	PNT -
0019459262	.8071	11.8700	.8750	3.5000	2.2000	8.4500	2.00
0019459992	.8125	15.5000	1.0000	3.5000	1.7500	11.5000	2.00
0019454812	.8250	19.0000	1.4995	4.0000	2.0000	14.7500	2.00
0019458472	.8550	12.0000	1.0000	3.0000	2.0000	9.5000	2.00
0019454002	.8755	10.0000	1.4998	4.0000	3.0000	14.7500	2.00
0019457302	.9075	16.0000	1.0000	3.5000	2.0000	11.5000	2.00
0019458042	.9380	14.0000	1.4998	4.0000	2.0000	9.7500	2.00
0019454602	.9380	19.0000	1.4998	4.0000	3.0000	13.7500	2.00
0019456282	.9531	32.0000	.9998	2.7500	1.5000	28.7500	2.00
0019457752	.9601	20.0000	1.2500	3.5000	3.0000	15.0000	2.00
0019454392	1.0000	17.0000	1.4998	4.0000	2.0000	12.5000	2.00
0019458132	1.0039	13.5800	.9998	5.5700	3.0000	8.3100	2.00
0019457922	1.0625	10.0000	1.0000	3.5000	2.2400	6.5000	2.00
0019457312	1.0625	16.0000	1.0000	3.5000	2.0000	11.5000	2.00
0019454662	1.0625	19.0000	1.4998	4.0000	2.2500	14.0000	2.00
0019457742	1.0851	20.0000	1.2500	3.5000	3.0000	15.0000	2.00
0019453202	1.2500	10.5000	1.4998	3.0000	2.0400	7.5000	2.00
0019453215	11.0000	55.6200	19.0470	63.9000	45.2000	482.6000	2.00
0019453662	11.2500	27.5400	25.4000	58.3000	29.4000	177.4000	2.00
0019453272	14.0000	26.5700	25.4000	58.3000	36.1000	165.0000	2.00
0019453252	14.5000	26.5700	25.4000	53.5000	53.5000	190.5000	2.00
0019456502	14.5000	204.8000	25.3950	76.2000	26.1000	215.9000	2.00
0019453246	15.0000	34.0000	25.4000	62.0000	25.4000	267.2000	2.00
0019453247	16.7500	520.0000	25.4000	60.0000	25.4000	317.2000	2.00
0019458812	17.0000	400.0000	25.4000	101.6000	17.5000	279.4000	2.00
0019452222	17.0000	400.0000	25.4000	101.6000	25.2000	265.8000	2.00
0019458772	18.2500	207.4000	22.2250	68.9000	57.9000	218.0000	2.00

Fig. 9G

PART NO.	CUT DIA-A	OVERALL LENGTH-B	SHANK DIA-C	SHANK LENGTH-D	TP LENGTH-E	FLUTE LENGTH-F	PNT
0019455262	205003	304.0380	22.2250	88.0000	57.3120	214.5300	2.00
0019455262	205375	393.7000	25.4000	88.0000	44.4500	252.1000	2.00
0019455262	210312	482.0000	38.0673	101.5000	80.0000	374.6500	2.00
0019455272	211710	304.0000	25.4000	76.2000	80.0000	215.9000	2.00
00194554002	221869	508.0000	38.0949	101.5000	76.2000	374.5500	2.00
00194557002	231125	405.4000	25.4000	88.0000	80.0000	292.1000	2.00
00194556042	231252	355.5000	38.0949	101.5000	80.0000	347.5500	2.00
00194554002	231252	482.0000	38.0949	101.5000	76.2000	349.2500	2.00
0019455262	242087	112.8000	25.3898	69.8500	36.1000	730.2500	2.00
00194557552	243025	508.0000	31.7500	88.0000	76.2000	361.0000	2.00
00194554002	254000	431.2000	38.0949	101.5000	80.0000	317.5000	2.00
00194554132	254950	352.5520	25.3949	141.4780	76.2000	211.0740	2.00
00194557322	263875	454.0000	25.4000	88.0000	61.2760	159.7000	2.00
00194557112	263975	405.4000	25.4000	88.0000	50.8000	292.1000	2.00
00194554462	263975	482.0000	38.0949	101.5000	57.1500	355.6000	2.00
00194557242	275615	508.0000	31.7500	88.0000	76.2000	361.0000	2.00
00194559287	320040	266.7000	38.0949	76.2000	61.2160	192.5000	2.00
00194559115	11.0000	554.8000	19.0470	69.3000	45.0000	402.6000	2.00
00194556962	115.0000	279.4000	25.4000	88.0000	28.4000	177.8000	2.00
00194559272	14.0000	266.7000	25.4000	88.0000	25.1000	163.5000	2.00
00194559252	14.5000	266.7000	25.4000	63.5000	19.5000	129.5000	2.00
00194558502	14.5000	304.8000	25.3950	76.2000	38.4000	5.2000	2.00
00194559246	15.0000	240.0000	25.4000	60.0000	13.4000	267.2000	2.00
00194559247	16.7500	250.0000	25.4000	60.0000	17.5000	117.2000	2.00
00194558612	17.0000	400.0000	25.4000	101.5000	36.2000	272.4000	2.00
00194559222	17.0000	400.0000	25.4000	101.5000	36.2000	201.5000	2.00
00194556732	18.2500	207.4000	22.2250	88.0000	67.2000	218.0000	2.00

170 172 174 176 198 200 202 208 212 180 178 196 182 158 159

SEARCHED BY: [REDACTED]

Fig. 9H

PART NO.	CUT DIA-A	OVERALL LENGTH-B	SHANK DIA-C	SHANK LENGTH-D	TP LENGTH-E	FLUTE LENGTH-F	PNT
0019455262	.0071	14.2000	1.750	3.5000	2.2800	8.4500	2.00
00194556992	.1125	12.0000	1.0000	3.5000	1.7500	11.5000	2.00
0019455262	.4280	12.0000	1.0000	4.0000	2.0000	14.7500	2.00
00194559412	.4550	12.0000	1.0000	3.0000	2.0000	8.5000	2.00
0019455262	.4575	10.0000	1.0000	4.0000	3.0000	14.7500	2.00
00194557322	.4775	16.0000	1.0000	3.5000	2.0000	15.0000	2.00
00194556962	.5000	14.0000	1.0000	4.0000	2.0000	13.7500	2.00
00194546022	.5160	19.0000	1.4996	4.0000	3.0000	13.7500	2.00
00194556962	.5160	12.0000	1.0000	4.0000	3.0000	13.7500	2.00
00194556962	.5231	32.0000	1.0000	2.7500	1.5000	26.7500	2.00
00194556962	.5231	20.0000	1.2500	3.5000	3.0000	15.0000	2.00
00194557322	.5601	17.0000	1.0000	4.0000	2.0000	13.0000	2.00
00194543922	1.0000	17.0000	1.4996	4.0000	2.0000	9.8100	2.00
00194551322	1.0039	13.8000	1.0000	5.5700	3.0000	5.5000	2.00
00194557322	1.0625	10.0000	1.0000	3.5000	2.4400	6.5000	2.00
00194557312	1.0625	16.0000	1.0000	3.5000	2.0000	11.5000	2.00
00194543922	1.0625	19.0000	1.4996	4.0000	2.0000	14.0000	2.00
0019457742	1.0651	20.0000	1.2500	3.5000	2.0000	15.0000	2.00
00194559267	1.2600	10.5000	1.4996	3.0000	2.0400	7.5000	2.00
00194552115	0.4330	21.9320	0.7458	2.519	1.7795	39.0000	2.00
00194552115	0.4330	21.9320	0.7458	2.519	1.1181	7.0000	2.00
00194552115	0.4330	21.9320	0.7458	2.519	6.4950	2.00	
00194552115	0.4330	21.9320	0.7458	2.519	7.4999	2.00	
00194552115	0.4330	21.9320	0.7458	2.519	8.5000	2.00	
00194552115	0.4330	21.9320	0.7458	2.519	10.5196	2.00	
00194552115	0.4330	21.9320	0.7458	2.519	12.4881	2.00	
00194552115	0.4330	21.9320	0.7458	2.519	10.8222	2.00	
00194552115	0.4330	21.9320	0.7458	2.519	11.2519	2.00	
00194552115	0.4330	21.9320	0.7458	2.519	8.5626	2.00	
00194552115	0.7185	12.1023	0.8750	3.5000	3.2725		

170 172 174 176 198 200 202 208 212 180 178 196 182 158 159

36

Fig. 10

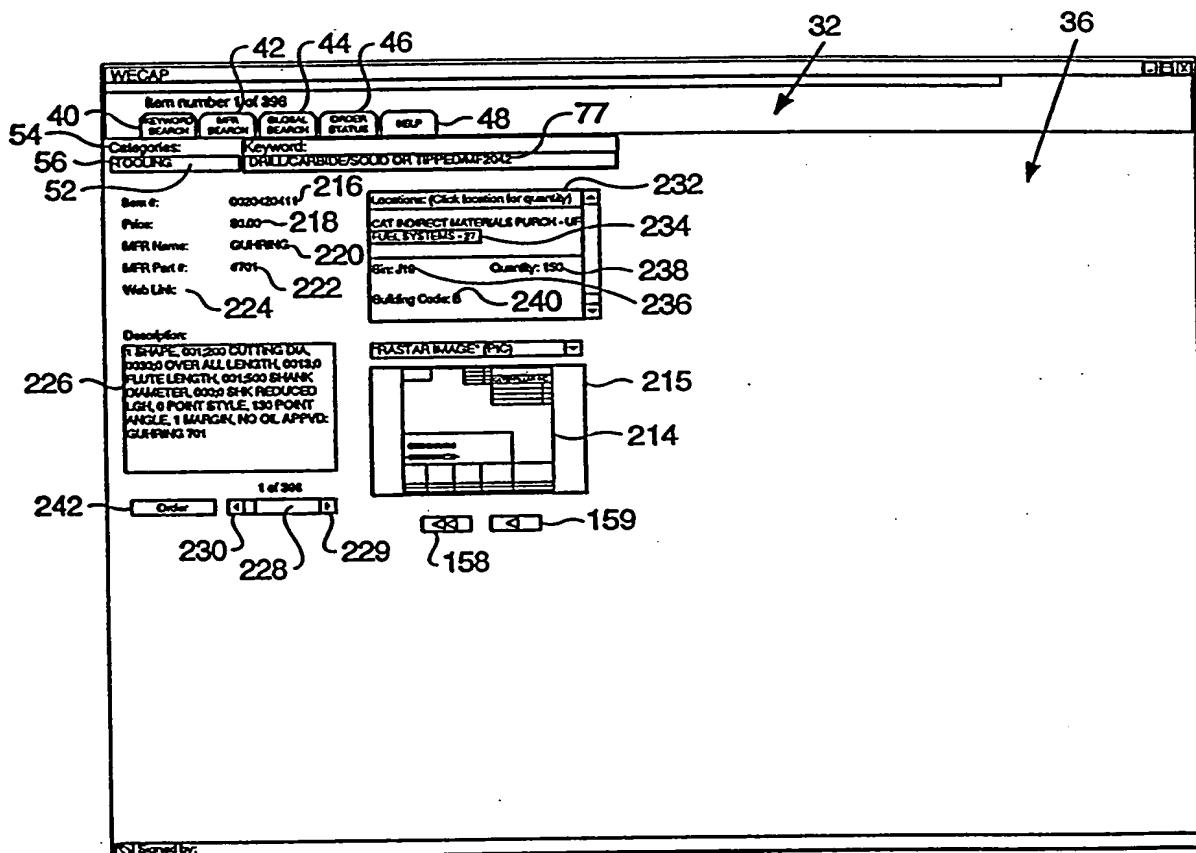


Fig. 11

Diagram illustrating a database search interface with numbered callouts:

Employee Name	248	Keyword	256	UM	258
KIPLINGER		DRILL CARBIDE SOLID OR TIPPED MF2040		PC	265
Employee ID	249	Emp Div/Sec	250	Qty Off:	150
0000039596		86560		Alloc:	
Class/Ident	251	Description	264		
1 0020420411	252	1 SHAPE, 001200 CUTTING DIA, 0030,0 OVER ALL LENGTH, 0013,0 FLUTE LENGTH, 001500 SHANK DIAMETER, 00010 SHK REDUCED LGH, 0 POINT STYLE, 130 POINT ANGLE, 1 MARGIN, NO OIL APPVD: GUHRING 701	257		
Facility Code	253	Qty Off:	254		
Building Code	255				
Crib No.	255				
Charge Div/Sec	260				
10	261				
Expense Act.	262	Hot Indicator	270	Tool Control	266
123456789	268	<input type="checkbox"/>		<input type="checkbox"/>	
Order No.	269				
Submit	272	Delivery Note	271		
Cancel	273				
Help	274				
<input type="checkbox"/> Signed by: _____ 246					

020431.0834

Database System Facilitating Textual
Search by: Steven C. Bailey, et al.
Filed: January 18, 2002 Sheet 23 of 49

Fig. 12A

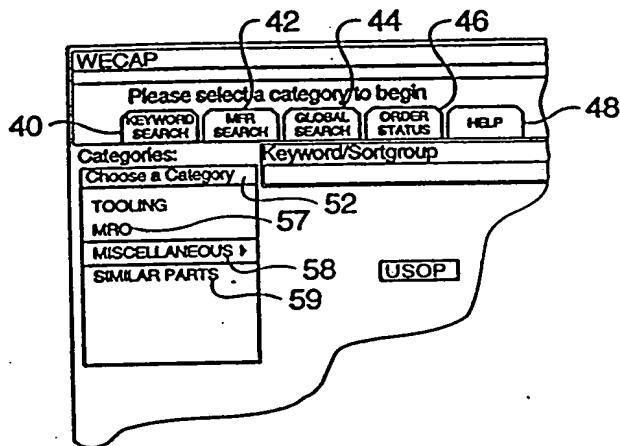


Fig. 12B

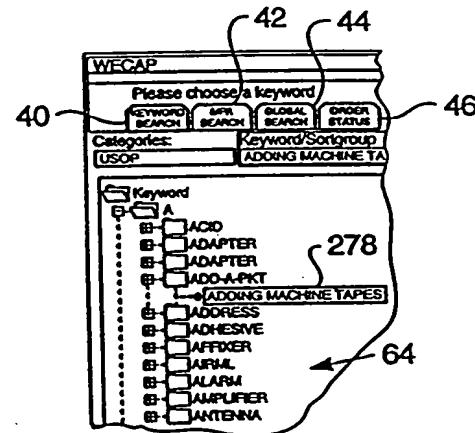
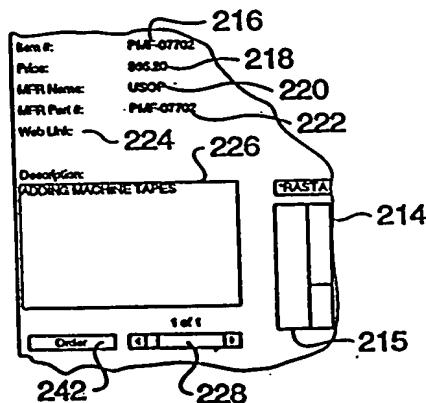


Fig. 12C



020431.0834

Database System Facilitating Textual
Search by: Steven C. Bailey, et al.
Filed: January 18, 2002 Sheet 24 of 49

Fig. 13A

WEBCAP

32

REQ NAME KIPLINGER	PHONE EXT 43397	DELIVER TO LOCATION	BUY RCV FAC FAC	PO PREFIX UBG	DOCK NO <input checked="" type="checkbox"/>	DATE 2000-04-19		
REQ E-MAIL ID	DELIVER TO NAME	PH EXT	DEL TO CODE	SHIP ROUTING	DUE DATE 2000-04-20	REBILL CODE <input checked="" type="checkbox"/>		
NOTE CODES: US 1400 <input type="checkbox"/> <input type="checkbox"/>	REMARKS: (Internal)							
NOTES: (To Supplier)								
DISTRIBUTION ACCOUNTING	FAC DEPT (NT 1009941865)	DIV (60)	SECT EXP <input checked="" type="checkbox"/>	ORDER NO. Order No.	MISC Misc	TAX CODE <input type="checkbox"/>	TAX QUAL <input type="checkbox"/>	<input type="checkbox"/> MANUAL REVIEW
ITEM NO. CATERPILLAR	ENT. NO. (01)	DESCRIPTION (PMF-07702)	QUANTITY	U/M CTN	PRICE 66.21	PER		
<input type="button" value="Submit"/> <input type="button" value="Cancel"/> <input type="button" value="Charge To"/> <input type="button" value="Help"/>								
<input checked="" type="checkbox"/> Signed by: 280								
<input checked="" type="checkbox"/> Signed by: 282								

36

Fig. 13B

REOR NAME 284 PHONE EXT DELIVER TO LOCATION BUY RCV
FAC FAC PO PREFIX DOCK NO DATE
REOR E-MAIL ID 43397 UBG 2000-04-19
REOR NAME PH EXT DEL TO CODE SHIP ROUTING DUE DATE
REMARKS: (Internal) (2000-04-20)
REBILL CODE
NOTE CODES: 286 NOTES: (To Supplier)
U9 400
DISTRIBUTION ACCOUNTING FAC DEPT DIV SECT EXP ORDER NO. MISC TAX CODE TAX QUIL MANUAL REVIEW
N1 10994 865 60 Order No. Misc
Fac Control Sub Acc Sub Sub
ITEM NO. CATERPILLAR IDENT. NO. DESCRIPTION QUANTITY U/M PRICE PER
01 PMF-07702 ADDING MACHINE TAPES 290 291
287 288 289 290 291
Submit Cancel Charge To Help
292
Signed by:

Fig. 13C

REQR NAME
KIPLINGER

REQR E-MAIL ID

NOTE CODES:
09 400

DISTRIBUTION ACCOUNTING

ITEM NO. CATEF
01 (PMFO)

Charge To: (if other than Submitter)

Last Name: 293

Fac Code: 297

Employee 283

Contractor 298

Both 296

Signed by: 292

297

298

300

299

294

280

292

292

292

Fig. 13D

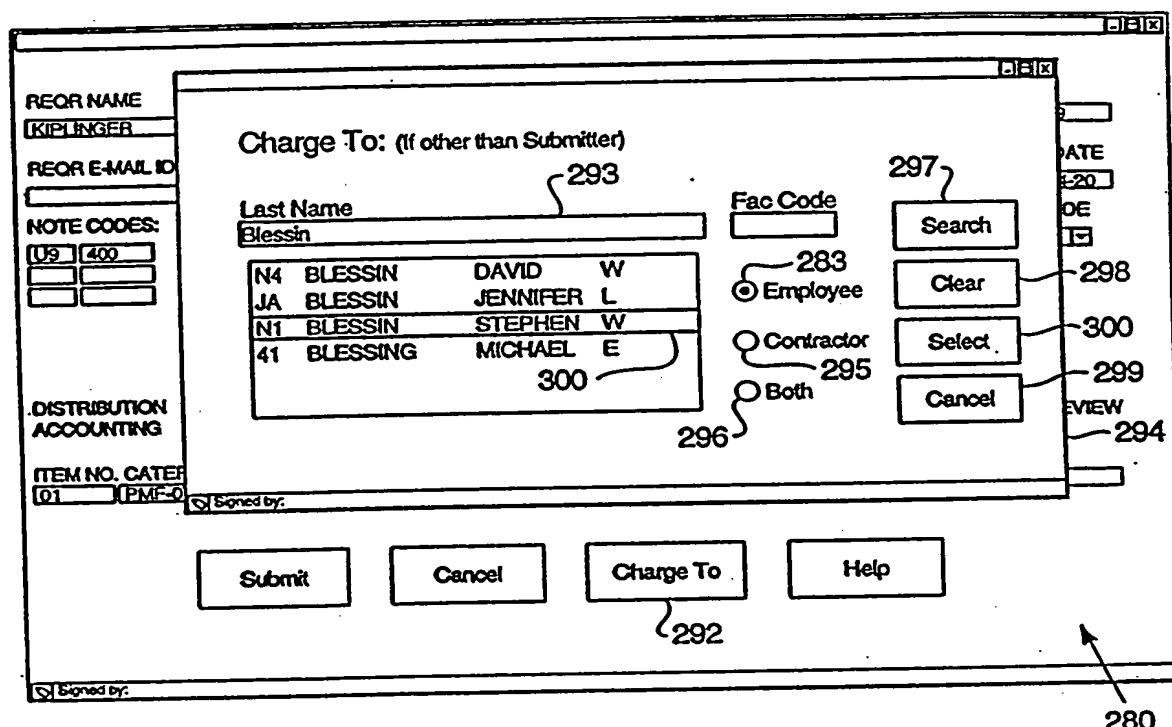


Fig. 13E

310 312

REQR NAME	284	PHONE EXT	302	DELIVER TO LOCATION	307	BUY FAC	RCV FAC	305 PO PREFIX	DOCK NO	318 DATE	285
REQR E-MAIL ID	320	DELIVER TO NAME	322	PH EXT	324	DEL TO CODE	328	SHIP ROUTING	DUE DATE	2000-04-20	2000-04-21
NOTE CODES:	286	REMARKS: (Internal)	324	328	330	REBILL CODE	326				
DISTRIBUTION ACCOUNTING	334 335	FAC DEPT	336 337	DIV SECT	304 EXP	ORDER NO.	340 MISC	342 TAX CODE	344 TAX QUAL	346	350
ITEM NO. CATERPILLAR	287	IDENT. NO.	308	DESCRIPTION	288	QUANTITY	289	U/M	PRICE	291	292
01 (PMF-07702)	287	308	309	308	289	309	289	CTN	66.21	291	352
<input type="button" value="Submit"/> 354 <input type="button" value="Cancel"/> 356 <input type="button" value="Charge To"/> 292 <input type="button" value="Help"/> 358											
<input type="checkbox"/> Signed by:											

020431.0834
**Database System Facilitating Textual
Search** by: Steven C. Bailey, et al.
Filed: January 18, 2002 Sheet 29 of 49

Fig. 13F

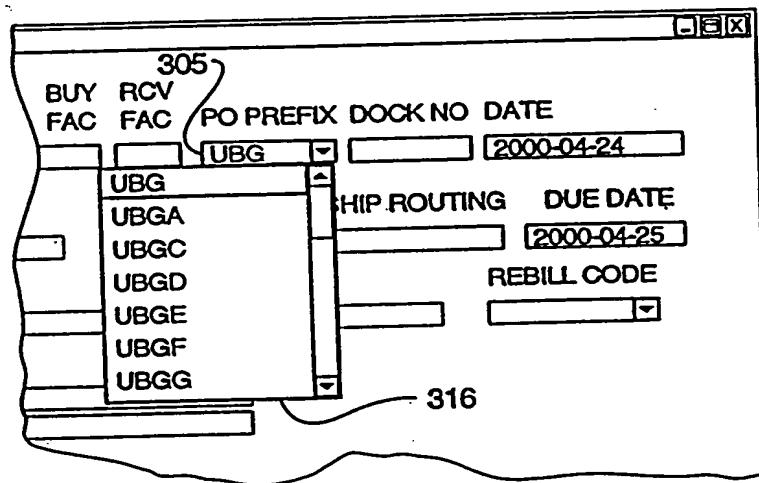


Fig. 13G

Fig. 13H

DISTRIBUTION ACCOUNTING	FAC DEPT (N1 00944)	DIV 865	SECT 70	EXP 1087	ORDER NO. []	MISC []	TAX CODE []	TAX QUA []	<input type="checkbox"/> MANUAL REVIEW															
Fac Control And Sub Accts																								
ITEM NO. CATERPILLAR IDENT. NO. [] (PME07702)																								
<table border="1"> <tr> <td colspan="2">DEFAULT</td> </tr> <tr> <td>BZ</td> <td>BUSINESS ZONE</td> </tr> <tr> <td>CR</td> <td>PURCH CREDIT</td> </tr> <tr> <td>EZ</td> <td>ENTERPRISE ZONE</td> </tr> <tr> <td>ME</td> <td>MACHINE / EQUIPMENT</td> </tr> <tr> <td>ME1</td> <td>MACHINE / EQUIPMENT</td> </tr> <tr> <td>ME2</td> <td>MACH AND EQUIP INC</td> </tr> <tr> <td colspan="2">[]</td> </tr> </table>									DEFAULT		BZ	BUSINESS ZONE	CR	PURCH CREDIT	EZ	ENTERPRISE ZONE	ME	MACHINE / EQUIPMENT	ME1	MACHINE / EQUIPMENT	ME2	MACH AND EQUIP INC	[]	
DEFAULT																								
BZ	BUSINESS ZONE																							
CR	PURCH CREDIT																							
EZ	ENTERPRISE ZONE																							
ME	MACHINE / EQUIPMENT																							
ME1	MACHINE / EQUIPMENT																							
ME2	MACH AND EQUIP INC																							
[]																								
<table border="1"> <tr> <td>ITEM</td> <td>PRICE</td> <td>PER</td> </tr> <tr> <td>IN</td> <td>66.21</td> <td>[]</td> </tr> <tr> <td colspan="3">348</td> </tr> <tr> <td colspan="3">[]</td> </tr> </table>									ITEM	PRICE	PER	IN	66.21	[]	348			[]						
ITEM	PRICE	PER																						
IN	66.21	[]																						
348																								
[]																								
<table border="1"> <tr> <td colspan="2">348</td> </tr> <tr> <td colspan="2">[]</td> </tr> <tr> <td colspan="2">Help</td> </tr> </table>									348		[]		Help											
348																								
[]																								
Help																								
<table border="1"> <tr> <td colspan="2">Submit</td> </tr> <tr> <td colspan="2">[]</td> </tr> </table>									Submit		[]													
Submit																								
[]																								

Fig. 13I

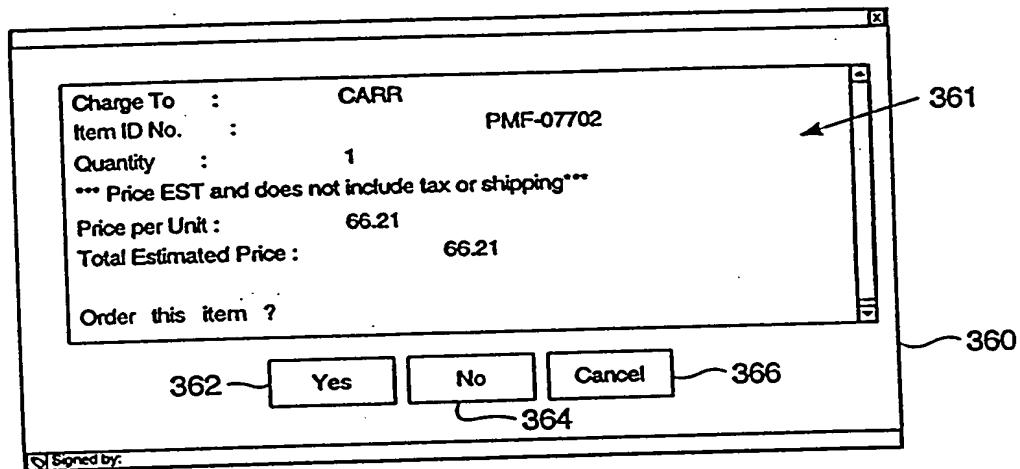


Fig. 14A

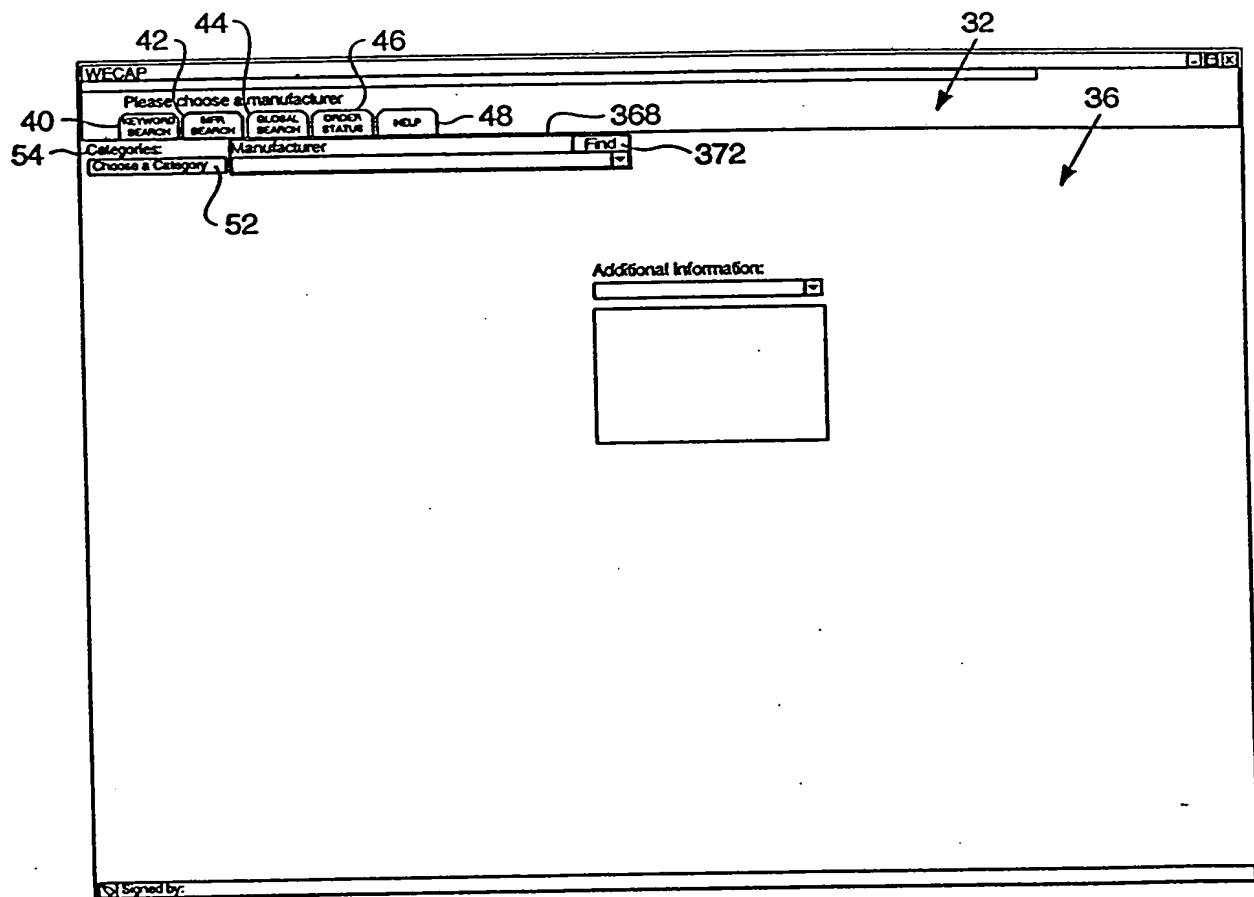


Fig. 14B

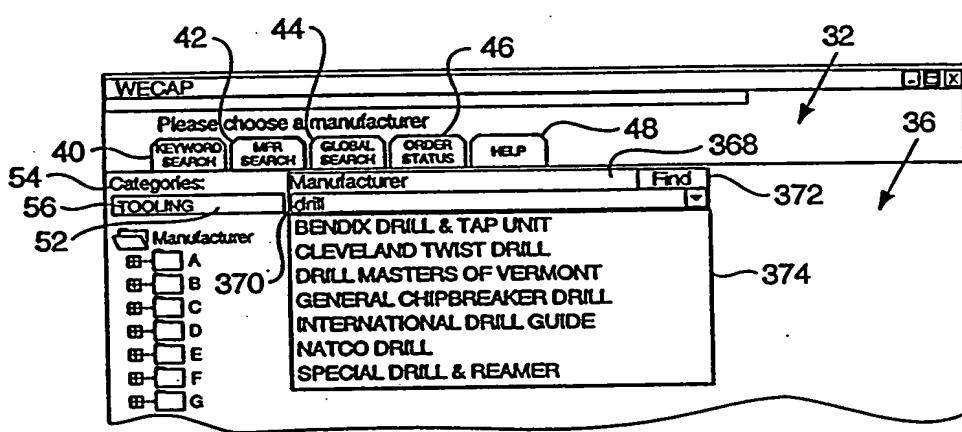


Fig. 14C

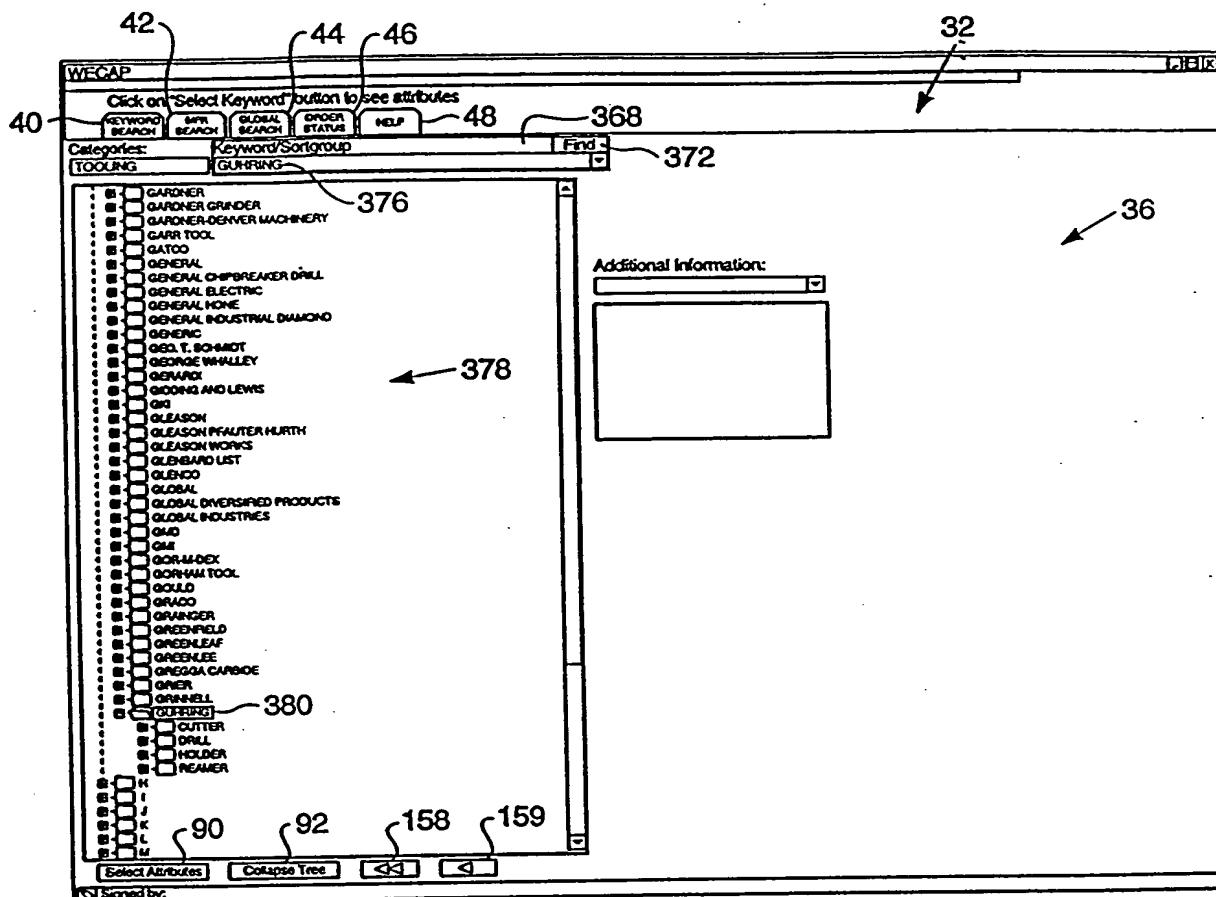


Fig. 14D

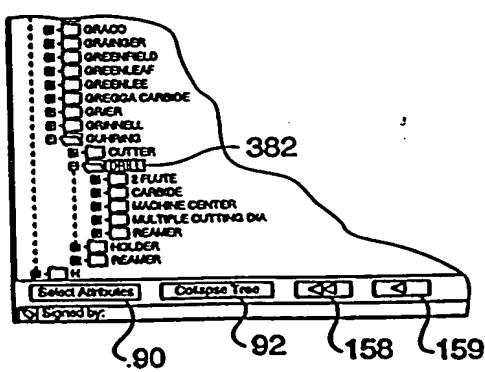


Fig. 14E

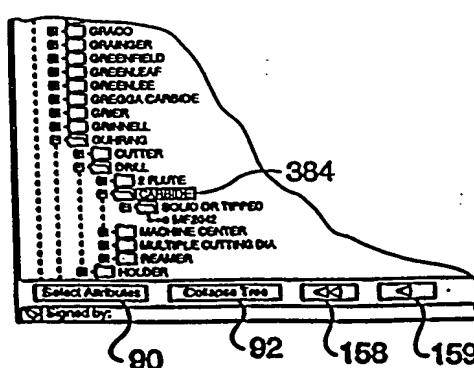


Fig. 14F

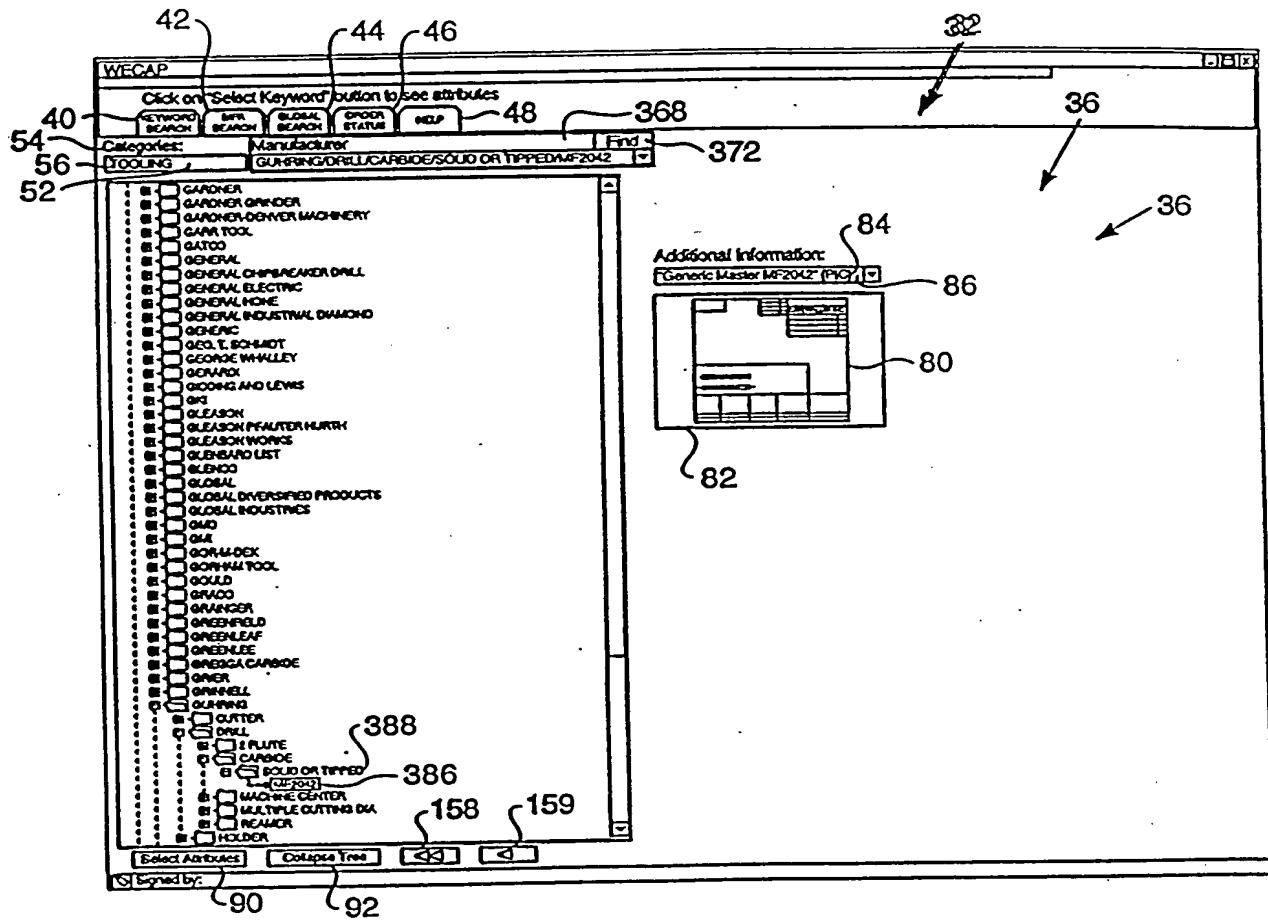


Fig. 14G

WEBCAP

Results 1-24 of 24

SEARCH SEARCH GLOBAL STATUS HELP

40 168 42 44 46 162

54 56 52 160

161

Categories: Keyword: DRILL CARBIDE COLD OR TIPPED/WF202

PART NO.	SHAPES	CUTTING DIA-A	OVERALL LENGTH-B	FLUTE LENGTH-C	SHANK DIAMETER-D	SHK REDUCED LENGTH-E	POINT STYLE	POINT -
0020420411	1.0000	1.2000	30.0000	13.0000	1.5000		2.0000	133
0020420412	1.0000	1.7000	43.0000	20.0000	1.2000		1.0000	116
0020420413	1.0000	10.0000	75.0000	36.0000	10.0000		1.0000	117
0020420414	1.0000	11.2000	95.0000	47.0000	11.2000		1.0000	152
0020420415	1.0000	12.8000	102.0000	51.0000	12.8000		1.0000	153
0020420421	1.0000	14.2000	145.0000	65.0000	16.0000		1.0000	144
0020420425	1.0000	2.5000	45.0000	15.0000	2.5000		1.0000	118
0020420407	1.0000	2.9000	46.0000	16.0000	2.9000		1.0000	119
0020420408	1.0000	3.2000	49.0000	18.0000	3.2000		1.0000	118
0020420409	1.0000	3.2400	49.0000	24.0000	3.2400		1.0000	150
0020420412	1.0000	4.5000	50.0000	25.0000	4.5000		1.0000	118
0020420421	1.0000	4.6000	56.0000	24.0000	4.6000		1.0000	118
0020420422	1.0000	4.8000	60.0000	25.0000	4.8000		1.0000	118
0020420452	1.0000	4.8000	60.0000	25.0000	4.8000		1.0000	118
0020420452	1.0000	5.2000	60.0000	25.0000	5.2000		1.0000	118
0020420452	1.0000	5.2000	60.0000	25.0000	5.2000		1.0000	118
0020420452	1.0000	6.0000	50.0000	25.0000	6.0000		1.0000	118
0020420452	1.0000	6.3000	77.7000	22.0000	6.0000	37.0000	1.0000	150
0020420405	1.0000	8.2000	79.0000	37.0000	8.2000		1.0000	150
0020420442	1.0000	9.4000	84.0000	40.0000	9.4000		1.0000	150
0020420494	1.0000	9.5000	84.0000	40.0000	9.5000		1.0000	143
0020420414	1.0000	20.0000	131.0000	40.0000	20.0000			80
0020420182	2.0000							
0020420002								
00204207452								
002042078512								

170 172 174 176

View Results Ladder Sort Order

Details Attributes Prev 100 Next 100 Reset Modify

208 212 180 178 196 182

198 200 202

158 159

155

Fig. 15A

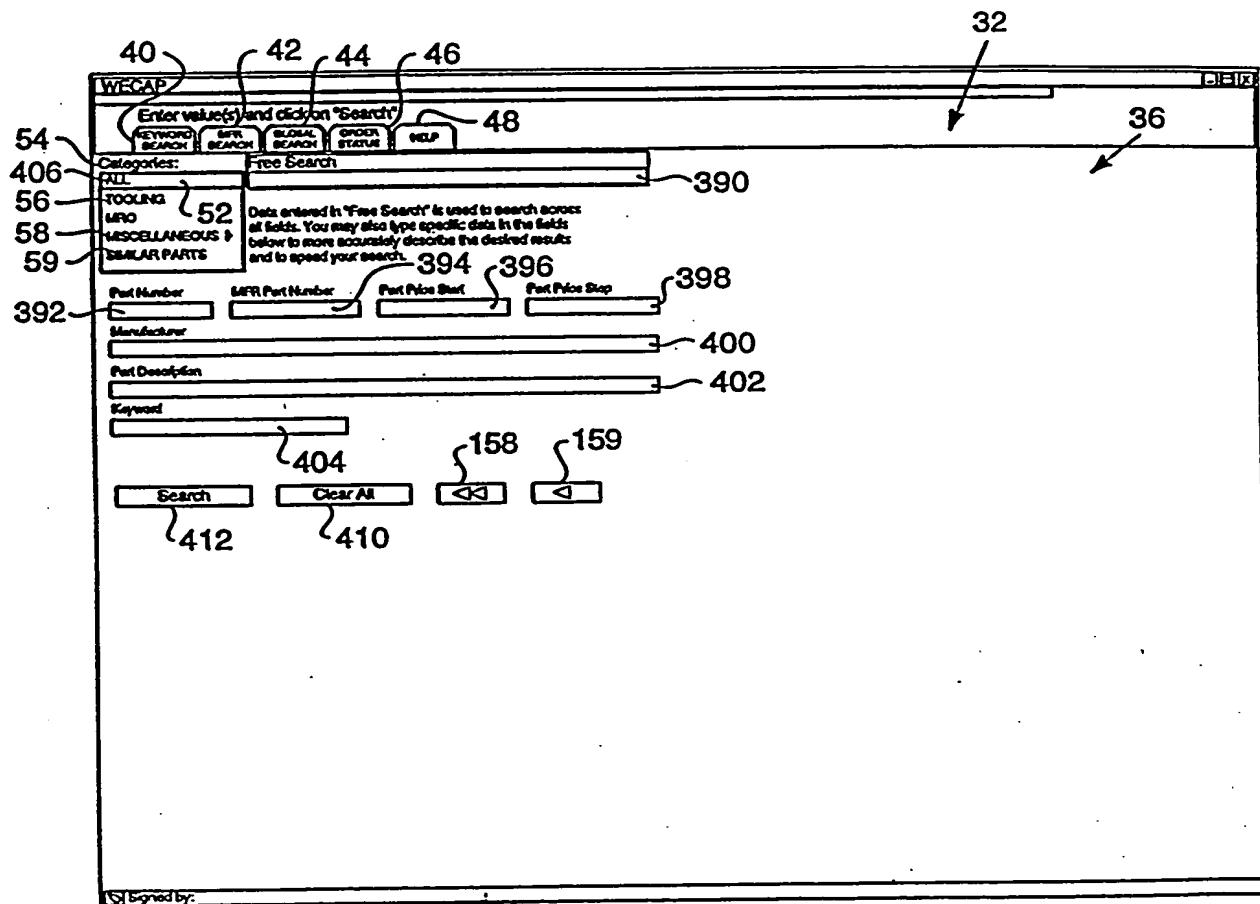


Fig. 15B

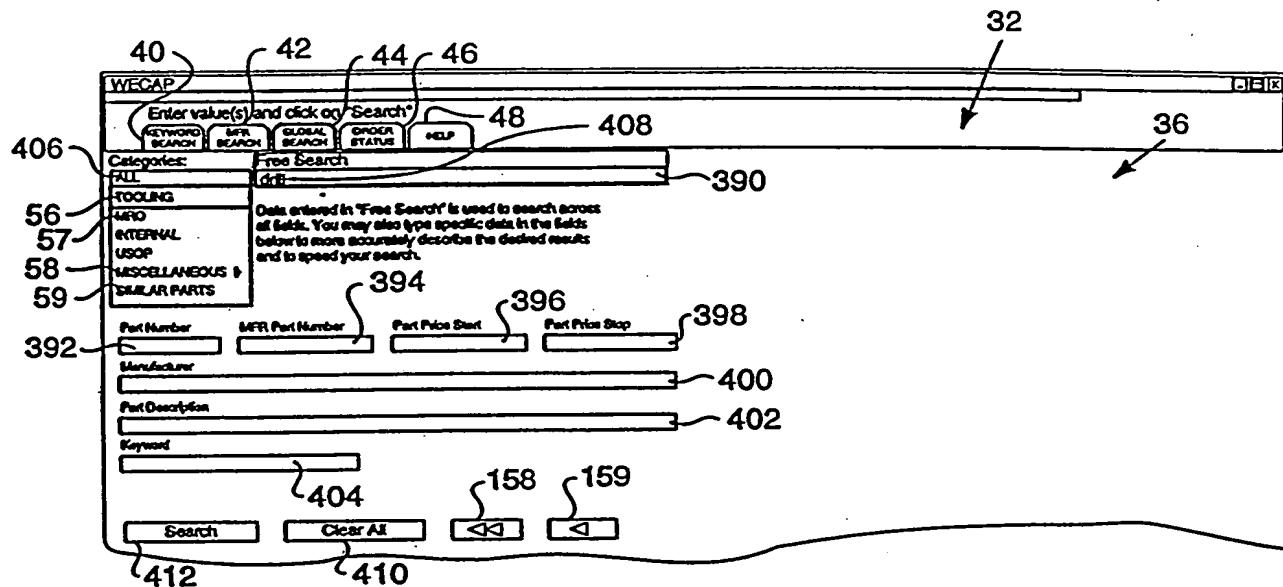


Fig. 15C

40		42		44		46		48		32		36	
WECAP													
Results 1-100 of 398													
KEYWORD SEARCH		MFR SEARCH		GLOBAL SEARCH		SEARCH STATUS		NEW					
Categories: Keyword:													
PART NO.	RANK	MAX	CATEGORIES	KEYWORD	DESCRIPTION								
0001100292	-----	-----	TOOLING	MF-2379	0.50 DRILL SIZE: 0.250 BIT CO. 2.00 OVERALL LENGTH. HSS MATERIAL. TYPE: STD MATERIAL. GRAD: APPROVED								
0001100342	-----	-----	TOOLING	MF-2379	0.50 DRILL SIZE: 0.500 BIT CO. 3.00 OVERALL LENGTH. HSS MATERIAL. TYPE: STD MATERIAL. GRAD: APPROVED								
0001100772	-----	-----	TOOLING	MF-2379	0.50 DRILL SIZE: 0.500 BIT CO. 72.7 OVERALL LENGTH. HSS MATERIAL. TYPE: M-2 MATERIAL. GRAD: DEC								
0001100782	-----	-----	TOOLING	MF-2379	18.75 DRILL SIZE: 0.500 BIT CO. 72.7 OVERALL LENGTH. HSS MATERIAL. TYPE: M-2 MATERIAL. GRAD: DEC								
0001100802	-----	-----	TOOLING	MF-2379	13.00 DRILL SIZE: 0.500 BIT CO. 72.7 OVERALL LENGTH. HSS MATERIAL. TYPE: M-2 MATERIAL. GRAD: DEC								
0001100812	-----	-----	TOOLING	MF-2379	11.00 DRILL SIZE: 0.500 BIT CO. 72.7 OVERALL LENGTH. HSS MATERIAL. TYPE: M-2 MATERIAL. GRAD: DEC								
0001100842	-----	-----	TOOLING	MF-2379	10.20 DRILL SIZE: 0.500 BIT CO. 72.7 OVERALL LENGTH. HSS MATERIAL. TYPE: M-2 MATERIAL. GRAD: DEC								
0001100872	-----	-----	TOOLING	MF-2379	12.50 DRILL SIZE: 0.500 BIT CO. 44.5 OVERALL LENGTH. HSS MATERIAL. TYPE: M-2 MATERIAL. GRAD: DEC								
0001100882	-----	-----	TOOLING	MF-2379	17.50 DRILL SIZE: 0.445 BIT CO. 80.0 OVERALL LENGTH. HSS MATERIAL. TYPE: M-2 MATERIAL. GRAD: DEC								
0001100892	-----	-----	TOOLING	MF-2379	12.00 DRILL SIZE: 0.500 BIT CO. 44.5 OVERALL LENGTH. HSS MATERIAL. TYPE: M-2 MATERIAL. GRAD: DEC								
0001100894	-----	-----	TOOLING	MF-2379	14.00 DRILL SIZE: 0.500 BIT CO. 44.5 OVERALL LENGTH. HSS MATERIAL. TYPE: M-2 MATERIAL. GRAD: DEC								
0001100902	-----	-----	TOOLING	MF-2379	10.50 DRILL SIZE: 0.500 BIT CO. 65.5 OVERALL LENGTH. HSS MATERIAL. TYPE: M-2 MATERIAL. GRAD: DEC								
0001100912	-----	-----	TOOLING	MF-2379	17.00 DRILL SIZE: 0.445 BIT CO. 80.0 OVERALL LENGTH. HSS MATERIAL. TYPE: M-2 MATERIAL. GRAD: DEC								
0001100915	-----	-----	TOOLING	MF-2379	11.00 DRILL SIZE: 0.500 BIT CO. 72.7 OVERALL LENGTH. HSS MATERIAL. TYPE: STD MATERIAL. GRAD: APPROVED								
0001100917	-----	-----	TOOLING	MF-2379	12.00 DRILL SIZE: 0.500 BIT CO. 44.5 OVERALL LENGTH. HSS MATERIAL. TYPE: STD MATERIAL. GRAD: APPROVED								
0001100921	-----	-----	TOOLING	MF-2379	17.00 DRILL SIZE: 0.500 BIT CO. 67.2 OVERALL LENGTH. HSS MATERIAL. TYPE: STD MATERIAL. GRAD: APPROVED								
0001100922	-----	-----	TOOLING	MF-2379	BIT, DRILL .300 TO 12.00 MM DRILL RANGE 80 DEG INCL ANGLE, .00 MM CO, BODY, .00 MM CO, 6 SHK, .00 OAL								
0001100930	-----	-----	TOOLING	MF-2379	14.00 DRILL SIZE: 0.500 BIT CO. 60.0 OVERALL LENGTH. TIN MATERIAL. TYPE: C-6 MATERIAL. GRAD: APPROVED								
0001100934	-----	-----	TOOLING	MF-2379	16.00 DRILL SIZE: 0.500 BIT CO. 60.0 OVERALL LENGTH. TIN MATERIAL. TYPE: C-6 MATERIAL. GRAD: APPROVED								
0001100935	-----	-----	TOOLING	MF-2379	16.00 DRILL SIZE: 0.500 BIT CO. 60.0 OVERALL LENGTH. TIN MATERIAL. TYPE: C-6 MATERIAL. GRAD: APPROVED								
0001100938	-----	-----	TOOLING	MF-2379	16.00 DRILL SIZE: 0.500 BIT CO. 60.0 OVERALL LENGTH. TIN MATERIAL. TYPE: C-6 MATERIAL. GRAD: APPROVED								
0019224332	-----	-----	TOOLING	MF-2060	SGL SHAPE: 0.0001 BODY DIAMETER, 0.2500 DPML DIAMETER, 0.2500 DRILL LENGTH, .0313 OVERALL LENGTH								
0019262542	-----	-----	TOOLING	MF-2060	1.4500 CUT DIAMETER, 14.00 OVERALL LENGTH, 04 SHANK NO. 04 SHANK TYPE, 0.000 SHANK DIA, HSS MAT								
0019324422	-----	-----	TOOLING	MF-2060	0.4210 CUT DIAMETER, 07.20 OVERALL LENGTH, 00 SHANK NO. 02 SHANK TYPE, 0.422 SHANK DIA, HSS MAT								
0019327373	-----	-----	TOOLING	MF-2060	BROCA .4FL MM DIA 18-250 CC 75 CT 136 HASTER R 18-250 CUT DIAMETER, 136.0 OVERALL LENGTH, ET ANG								
0019705322	-----	-----	TOOLING	MF-2060	0.5007 SMALL DIA, 0.6561 LARGE DIA, 06.50 OVERALL LENGTH, 00.47 STEP LENGTH, 04.00 FLUTE LENGTH								
0019759792	-----	-----	TOOLING	MF-2060	MULTIPLE CUTTING DIA, 36000 SHAL DIA, 0.6520 LARGE DIA, 4.250 OAL MATT, HSS STD								
0019807582	-----	-----	TOOLING	MF-2060	06.000 SMALL DIA, 06.525 LARGE DIA, 114.9 OVERALL LENGTH, 0115 STEP LENGTH, 014.0 FLUTE LENGTH								
0019811535	-----	-----	TOOLING	MF-2060	06.100 SMALL DIA, 06.0000 LARGE DIA, 165.0 OVERALL LENGTH, 0050 STEP LENGTH, 079.0 FLUTE LENGTH								
0020184372	-----	-----	TOOLING	MF-2065	0.5 SHAPE, 02.5000 CUTTING DIA, 14.75 OVERALL LENGTH, 0175 FLUTE LENGTH, 00 SHANK NO. VFLG SHANK								
0020167094	-----	-----	TOOLING	MF-2065	1.5 SHAPE, 02.0000 CUTTING DIA, 14.00 OVERALL LENGTH, 0050 FLUTE LENGTH, 00 SHANK NO. ARS SHANK								
0020187616	-----	-----	TOOLING	MF-2065	1.5 SHAPE, 02.1000 CUTTING DIA, 14.00 OVERALL LENGTH, 0050 FLUTE LENGTH, 00 SHANK NO. ARS SHANK								
0019224342	-----	-----	TOOLING	MF-2060	SGL SHAPE, 0.0001 BODY DIAMETER, 0.2500 DPML DIAMETER, 0.312 DRILL LENGTH, 03.13 OVERALL LENGTH								
0019226262	-----	-----	TOOLING	MF-2060	1.8000 CUT DIAMETER, 06.00 OVERALL LENGTH, 04 SHANK NO. 04 SHANK TYPE, 0.000 SHANK DIA, HSS MAT								
0019324432	-----	-----	TOOLING	MF-2060	0.5112 CUT DIAMETER, 06.00 OVERALL LENGTH, 00 SHANK NO. 05 SHANK TYPE, 0.511 SHANK DIA, HSS MAT								
0019329736	-----	-----	TOOLING	MF-2060	BROCA .4FL MM DIA 18-250 CC 75 CT 136 HASTER R 18-250 CUT DIAMETER, 136.0 OVERALL LENGTH, ET ANG								

020431.0834

Database System Facilitating Textual
Search by: Steven C. Bailey, et al.
Filed: January 18, 2002 Sheet 41 of 49

Fig. 15D

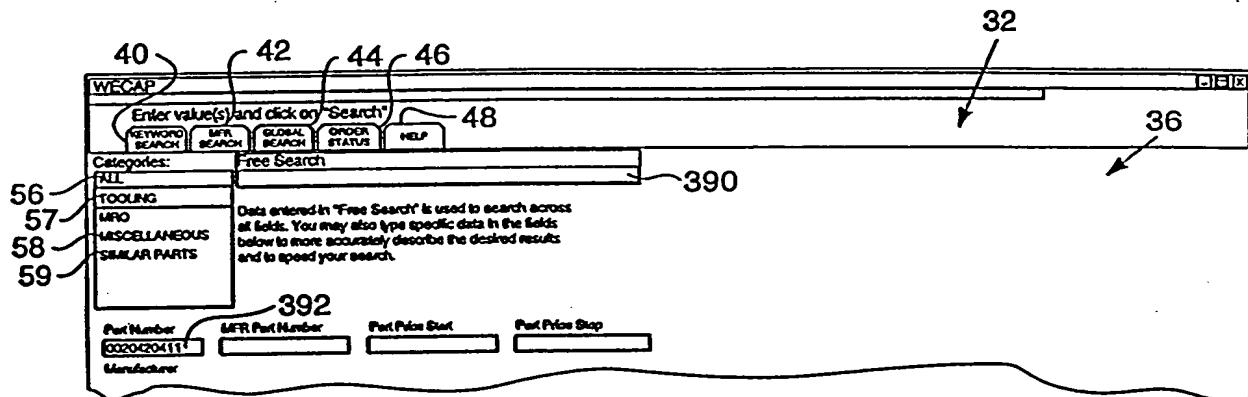


Fig. 15E

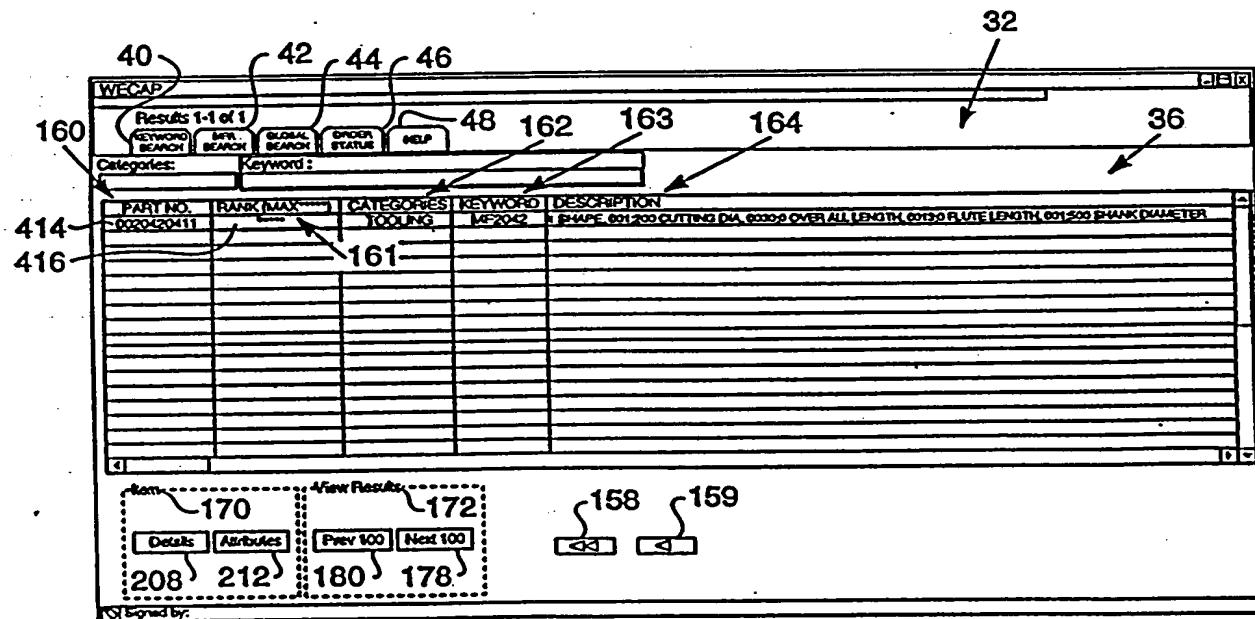


Fig. 15F

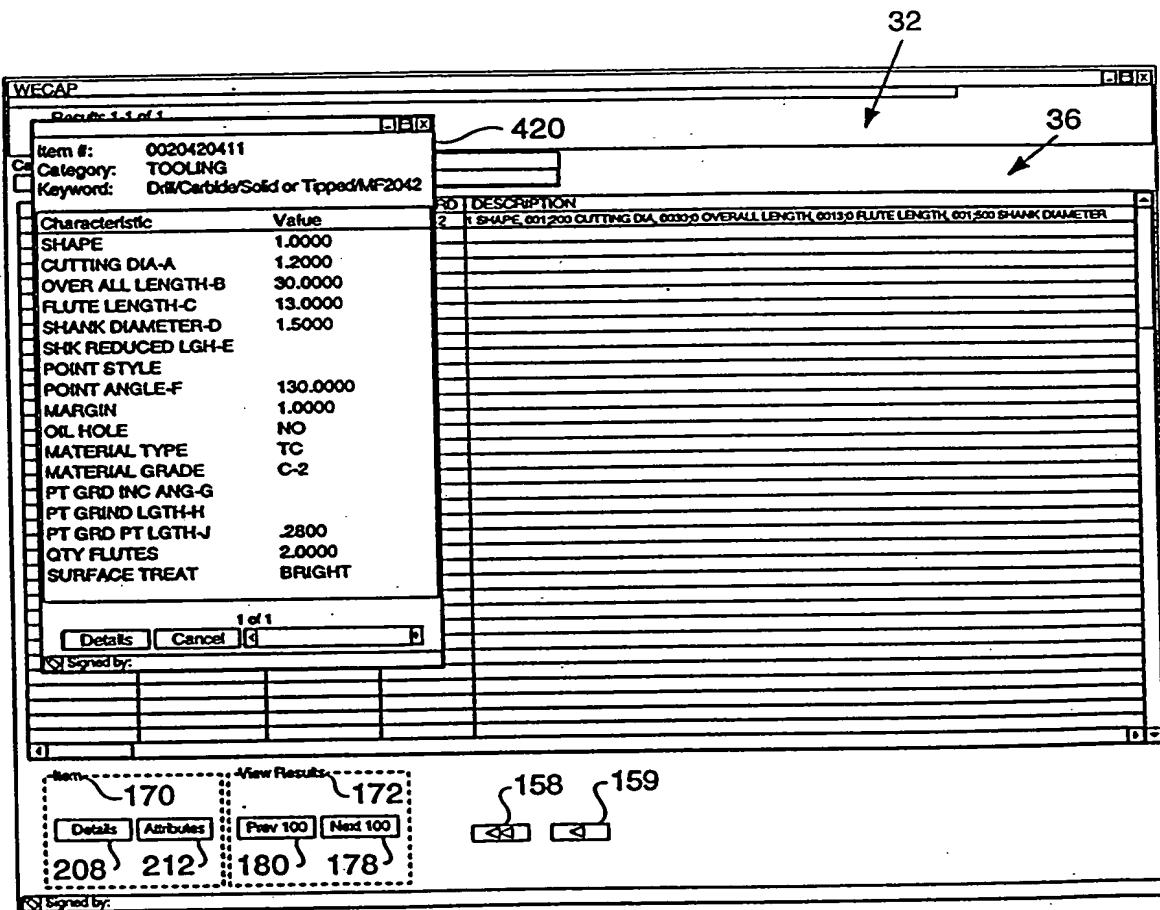


Fig. 15G

422

Item #:	0020420411	424																																				
Category:	TOOLING	420																																				
Keyword:	Drill/Carbide/Solid or Tipped/MF2042	426																																				
<table border="1"> <thead> <tr> <th>Characteristic</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>SHAPE</td> <td>1.0000</td> </tr> <tr> <td>CUTTING DIA-A</td> <td>1.2000</td> </tr> <tr> <td>OVER ALL LENGTH-B</td> <td>30.0000</td> </tr> <tr> <td>FLUTE LENGTH-C</td> <td>13.0000</td> </tr> <tr> <td>SHANK DIAMETER-D</td> <td>1.5000</td> </tr> <tr> <td>SHK REDUCED LGH-E</td> <td></td> </tr> <tr> <td>POINT STYLE</td> <td></td> </tr> <tr> <td>POINT ANGLE-F</td> <td>130.0000</td> </tr> <tr> <td>MARGIN</td> <td>1.0000</td> </tr> <tr> <td>OIL HOLE</td> <td>NO</td> </tr> <tr> <td>MATERIAL TYPE</td> <td>TC</td> </tr> <tr> <td>MATERIAL GRADE</td> <td>C-2</td> </tr> <tr> <td>PT GRD INC ANG-G</td> <td></td> </tr> <tr> <td>PT GRIND LGTH-H</td> <td></td> </tr> <tr> <td>PT GRD PT LGTH-J</td> <td>.2800</td> </tr> <tr> <td>QTY FLUTES</td> <td>2.0000</td> </tr> <tr> <td>SURFACE TREAT</td> <td>BRIGHT</td> </tr> </tbody> </table>		Characteristic	Value	SHAPE	1.0000	CUTTING DIA-A	1.2000	OVER ALL LENGTH-B	30.0000	FLUTE LENGTH-C	13.0000	SHANK DIAMETER-D	1.5000	SHK REDUCED LGH-E		POINT STYLE		POINT ANGLE-F	130.0000	MARGIN	1.0000	OIL HOLE	NO	MATERIAL TYPE	TC	MATERIAL GRADE	C-2	PT GRD INC ANG-G		PT GRIND LGTH-H		PT GRD PT LGTH-J	.2800	QTY FLUTES	2.0000	SURFACE TREAT	BRIGHT	430
Characteristic	Value																																					
SHAPE	1.0000																																					
CUTTING DIA-A	1.2000																																					
OVER ALL LENGTH-B	30.0000																																					
FLUTE LENGTH-C	13.0000																																					
SHANK DIAMETER-D	1.5000																																					
SHK REDUCED LGH-E																																						
POINT STYLE																																						
POINT ANGLE-F	130.0000																																					
MARGIN	1.0000																																					
OIL HOLE	NO																																					
MATERIAL TYPE	TC																																					
MATERIAL GRADE	C-2																																					
PT GRD INC ANG-G																																						
PT GRIND LGTH-H																																						
PT GRD PT LGTH-J	.2800																																					
QTY FLUTES	2.0000																																					
SURFACE TREAT	BRIGHT																																					
1 of 1																																						
<input type="button" value="Details"/> <input type="button" value="Cancel"/> <input type="button" value="◀"/> <input type="button" value="▶"/> <input type="checkbox"/> Signed by: 																																						

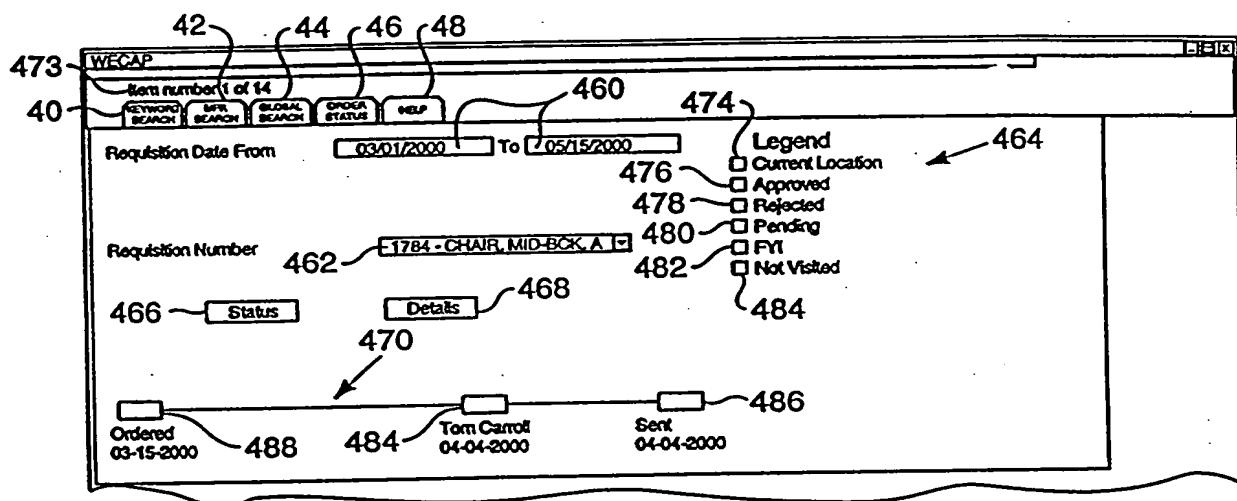
428

434

432

436

Fig. 16A



020431.0834

Database System Facilitating Textual
Search by: Steven C. Bailey, et al.
Filed: January 18, 2002 Sheet 45 of 49

Fig. 16B

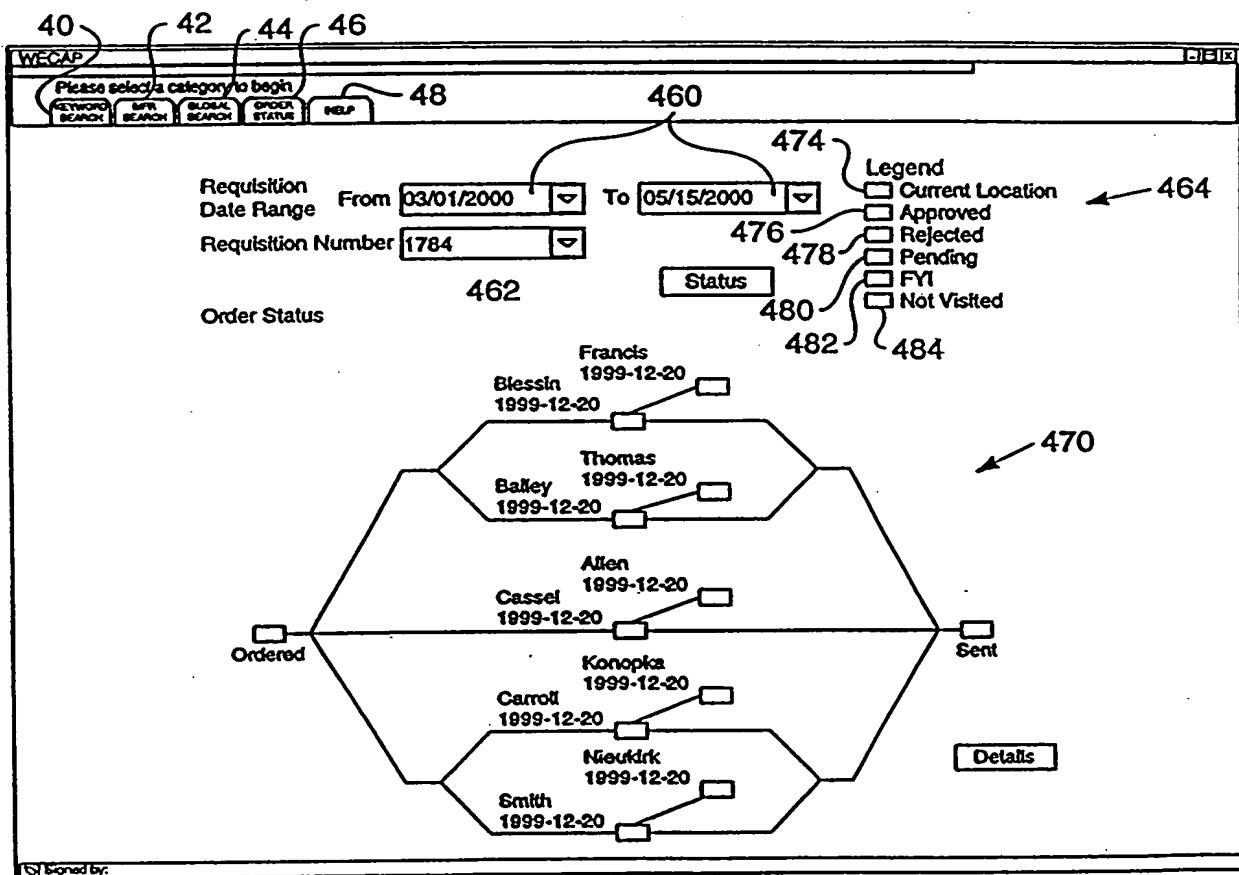


Fig. 17A

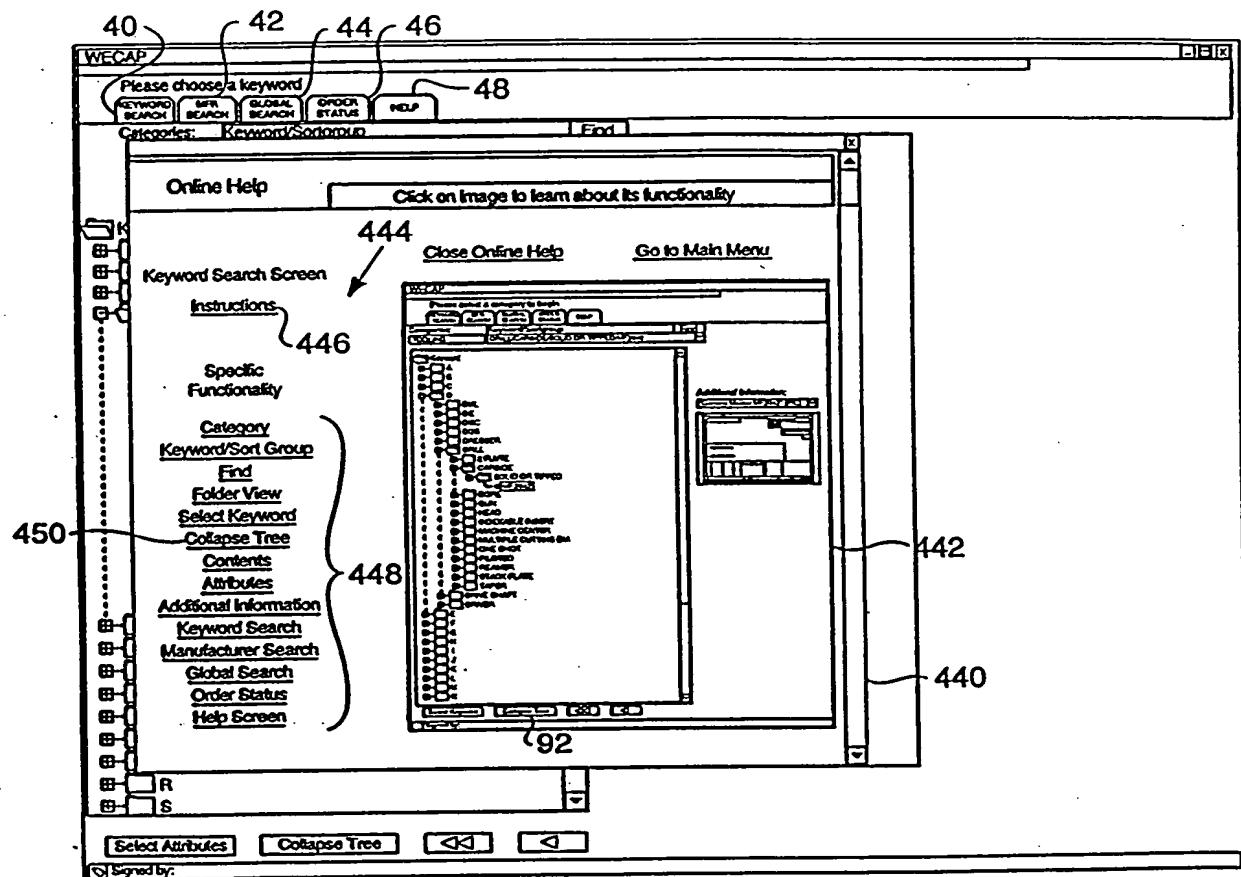
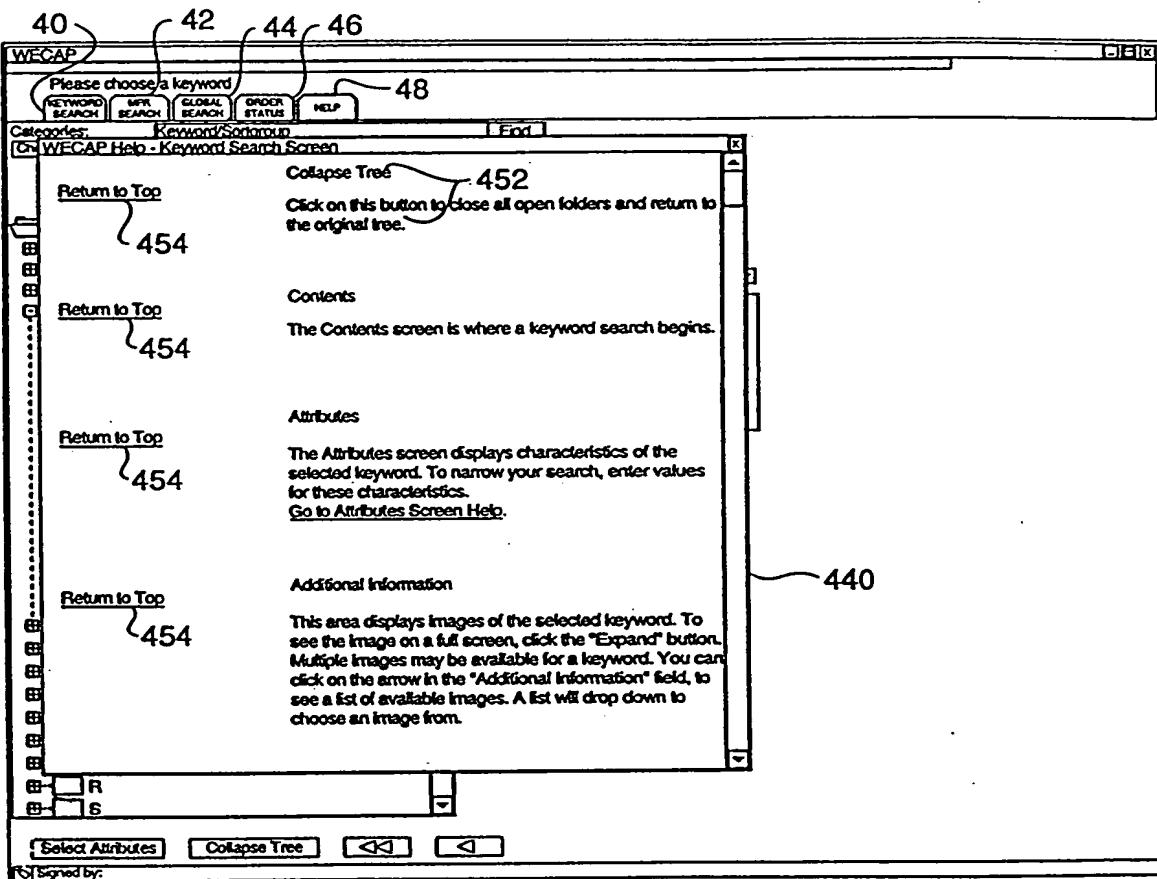


Fig. 17B



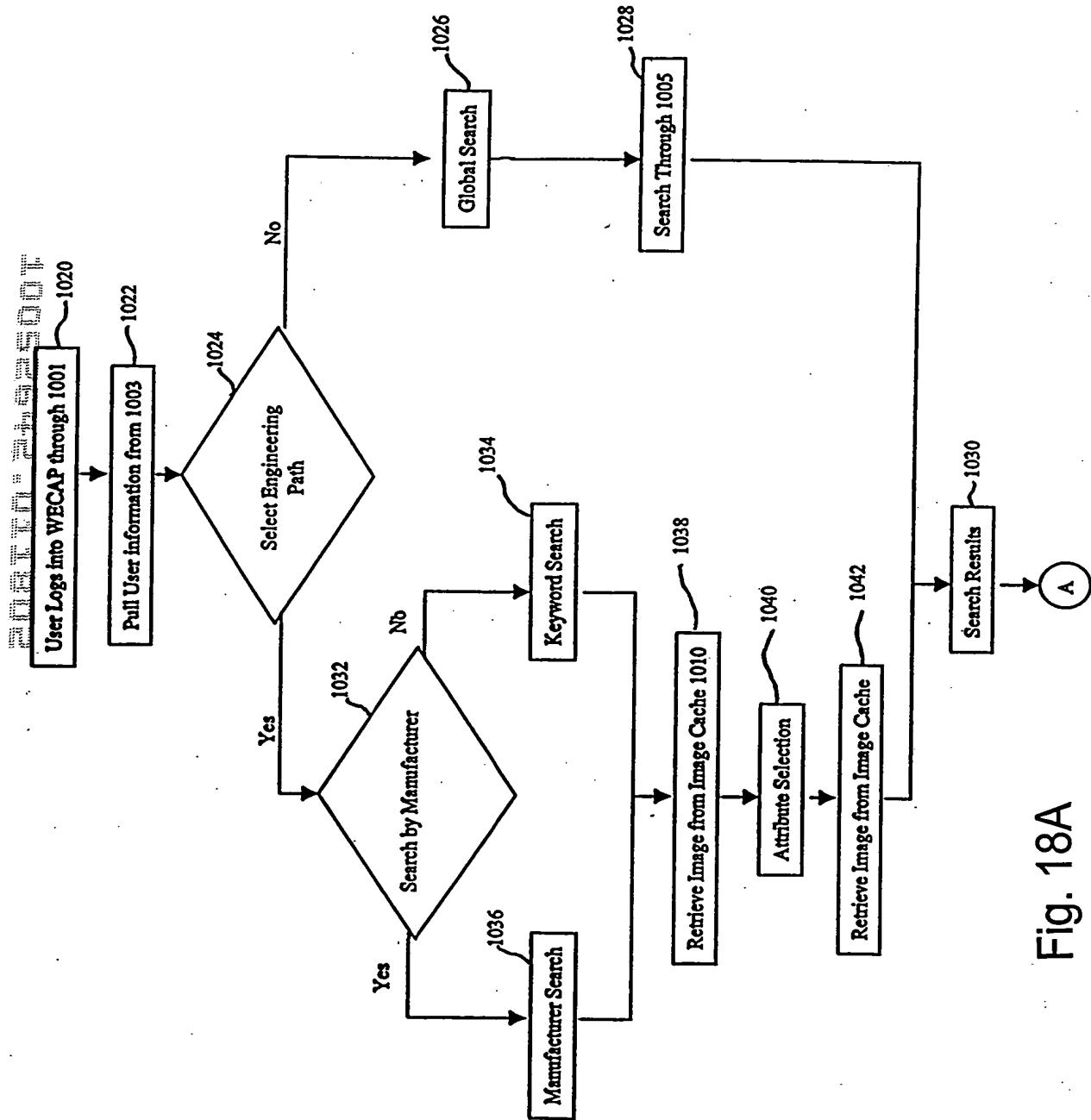


Fig. 18A

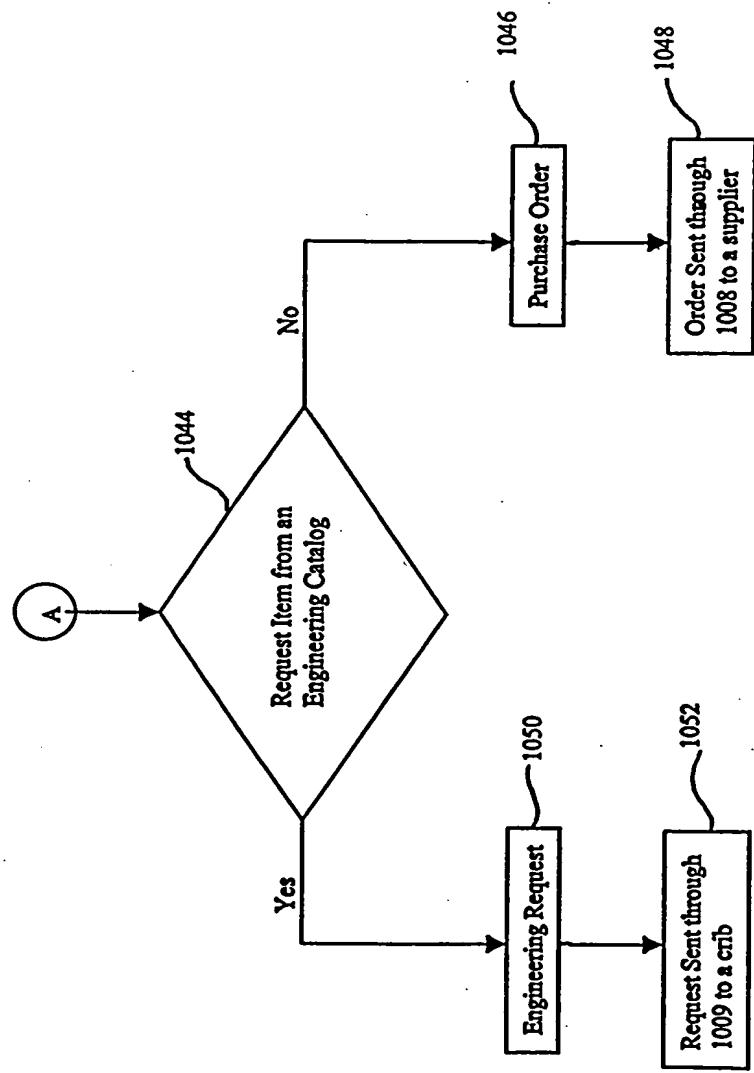


Fig. 18B